



SNOW COLLEGE LIBRARY

150 COLLEGE AVENUE
EPHRAIM, UTAH 84627

ARCHITECT'S PROJECT NO.: B07-051
DFCM PROJECT NO.: 07258700

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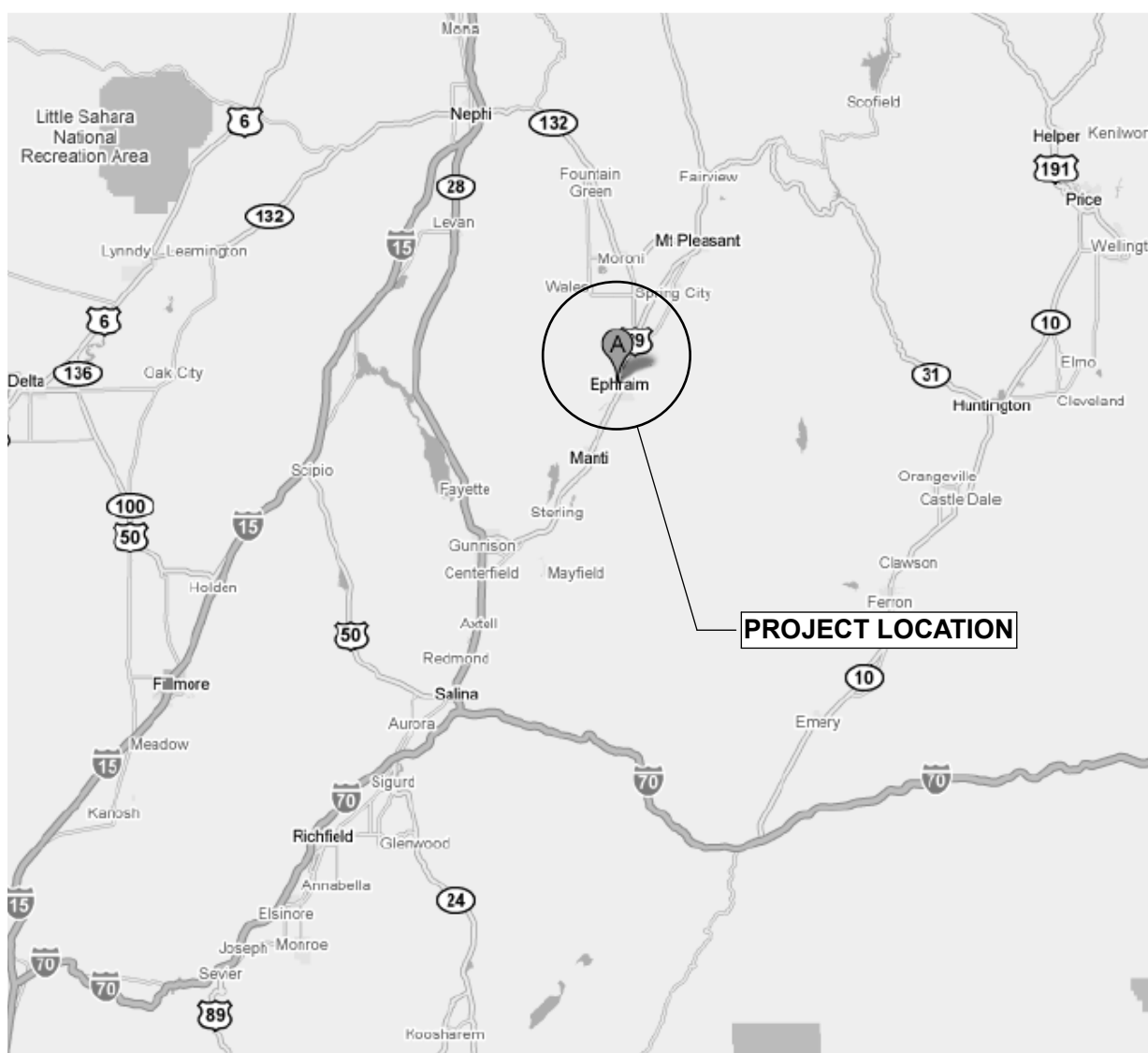
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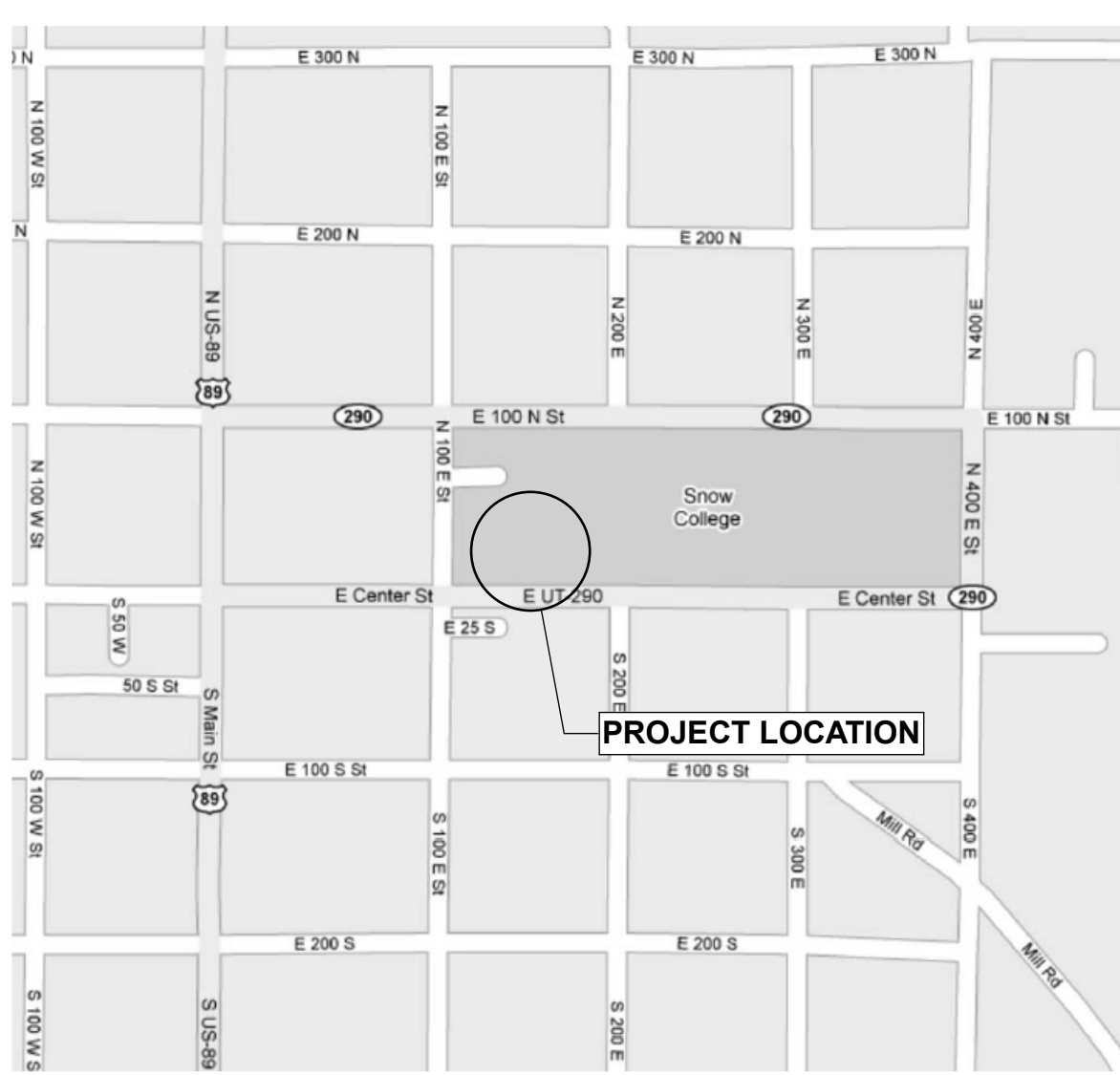
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Vicinity Map



Project Map

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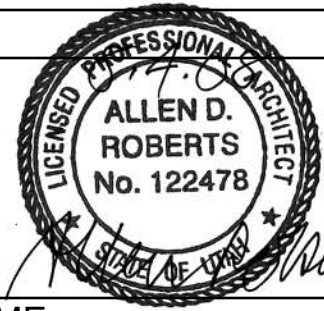
DEFERRED SUBMITTALS

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FIRE FIRE ALARM SYSTEM
STRUCT. MECH. STABILIZED EARTH WALL (MSE) DETAILS
STRUCT. FOUNDATION SUPPORT SYSTEM DETAILS, INCLUDING MICROPILES OR HELICAL PIERS
MECH. FIRE SPRINKLER PLANS, DETAILS
MECH. MECH. SEISMIC BRACING, INCLUDING PIPING, DUCTWORK AND EQUIPMENT
ELEC. SEISMIC BRACING DETAILS FOR ELECTRICAL EQUIPMENT
ELEC. FIRE ALARM SYSTEM
FURN. SEISMIC BRACING, ANCHORING FOR FIXED SHELVING AND HIGH-DENSITY STORAGE RACKS

EST. DATE

8/4/08
3/2009
7/2009
12/2008

STAMP:



PROJECT NAME:

Snow College Library

150 College Avenue
Ephraim, Utah 84627

REVISIONS:

100% CD, September 15, 2008
100% CD Review, August 4, 2008
ISSUE DATE:
SEPTEMBER 15 2008, 100% CD
ARCHITECT'S PROJECT NUMBER:
B07-051
DFCM PROJECT NUMBER:
07258700
SHEET TITLE:
TITLE SHEET
SHEET NUMBER:

GI000

Building Narrative

The Snow College Library has 3 stories above grade, plus a basement. It is a mixed use building, comprised of library stack and reading spaces, private study spaces, a café and an auditorium. It is designed with all allowable materials under type II-A construction and an occupancy of A-3. There are 5 exits at the main floor, 4 means of egress from the basement, including 2 direct means of egress and an egress stair from the rooftop terrace. (The rooftop terrace is an add alternate.) Total square footage for accessory occupancies, A-2 and B, is less than 10% of the total square footage for the building.

Total building area does not exceed the allowable area.

Allowable area increase for fire sprinklers not taken as per IBC Table 601, exception "e" and Table 602.

The building will be fully sprinkled with an NFPA type system.

Sprinkler system is allowed to be substituted for 1 hour fire resistance rated construction, provide sprinkler system is not used for allowable area or height increase (1 hour substitution for exterior bearing walls not permitted). Exterior bearing walls, floors, fire walls and fire partitions are all of 1 hour rated construction. Shaft enclosures are of 2 hour rated construction. Floor and framing members will have same fire rating as the shaft enclosures they support, including columns, for the entire structural bay.

Allowable story increase of 1, and allowable height increase of 20' are both not taken.

The finished surface of the floor above the basement is no more than 12' above finished grade at any point except for the emergency egress stairs.

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SNOW
COLLEGE



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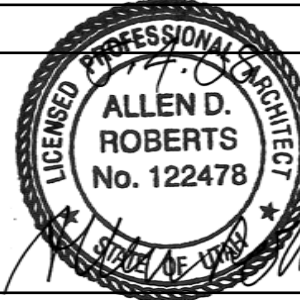
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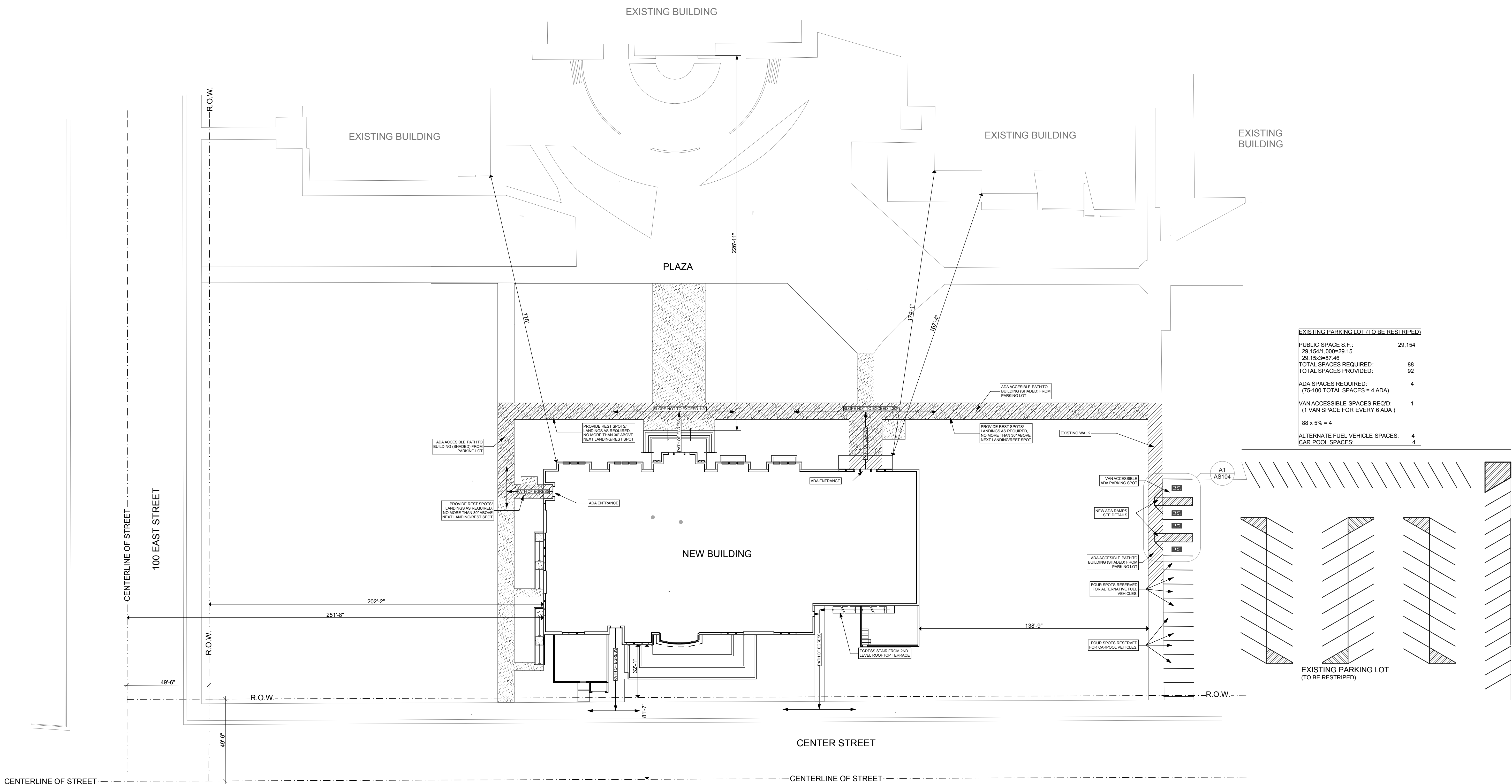
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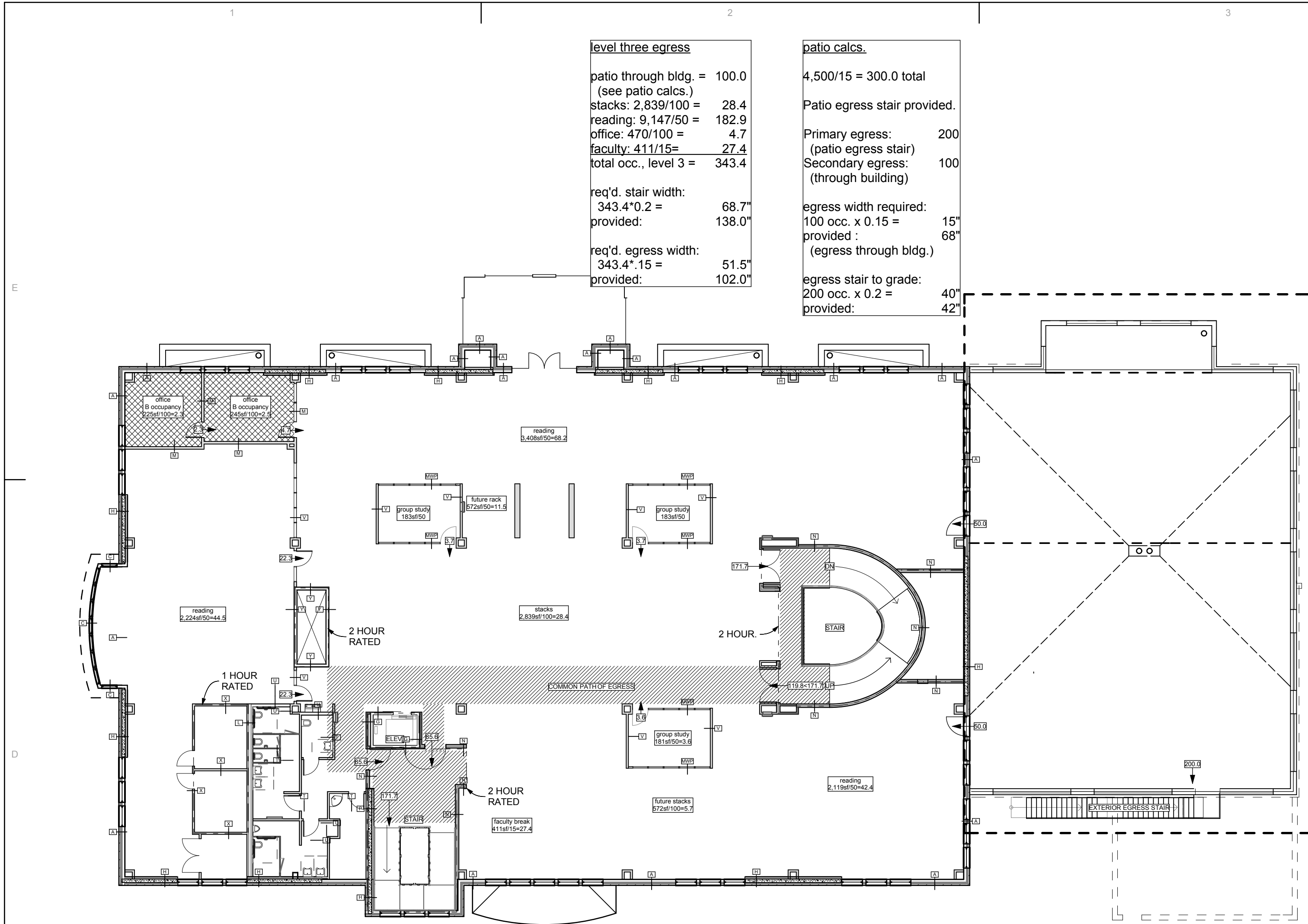
Code Review Site

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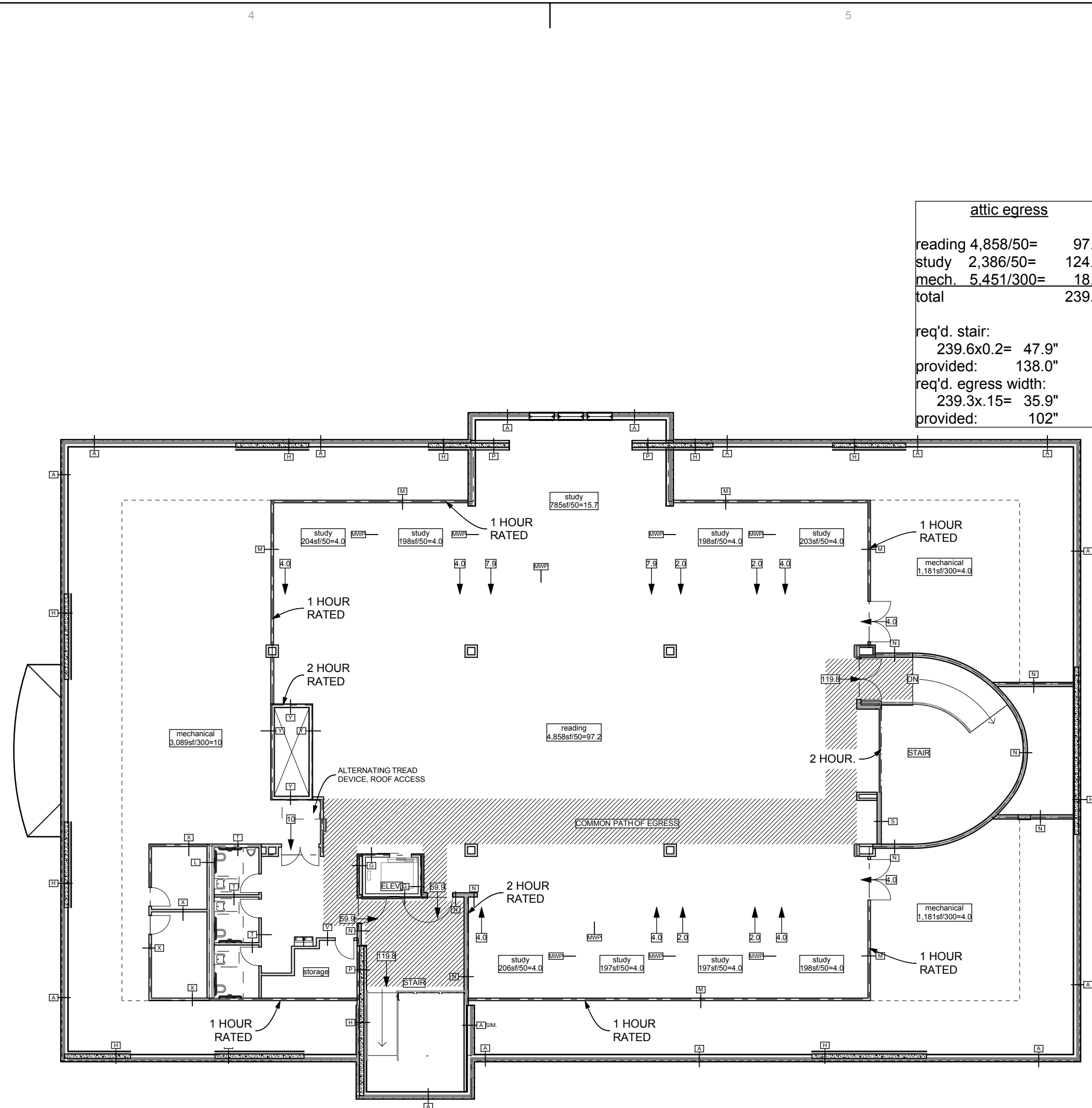
CR100



EXISTING PARKING LOT (TO BE RESTRIPTED)	
PUBLIC SPACE S.F.:	29,154
29,154 x 1,000 = 29,154	
29,154 x 87.48	
TOTAL SPACES REQUIRED:	88
TOTAL SPACES PROVIDED:	92
ADA SPACES REQUIRED:	4
(75-100 TOTAL SPACES = 4 ADA)	
VAN ACCESSIBLE SPACES REQ'D:	1
(1 VAN SPACE FOR EVERY 6 ADA)	
88 x 5% = 4	
ALTERNATE FUEL VEHICLE SPACES:	4
CAR POOL SPACES:	4

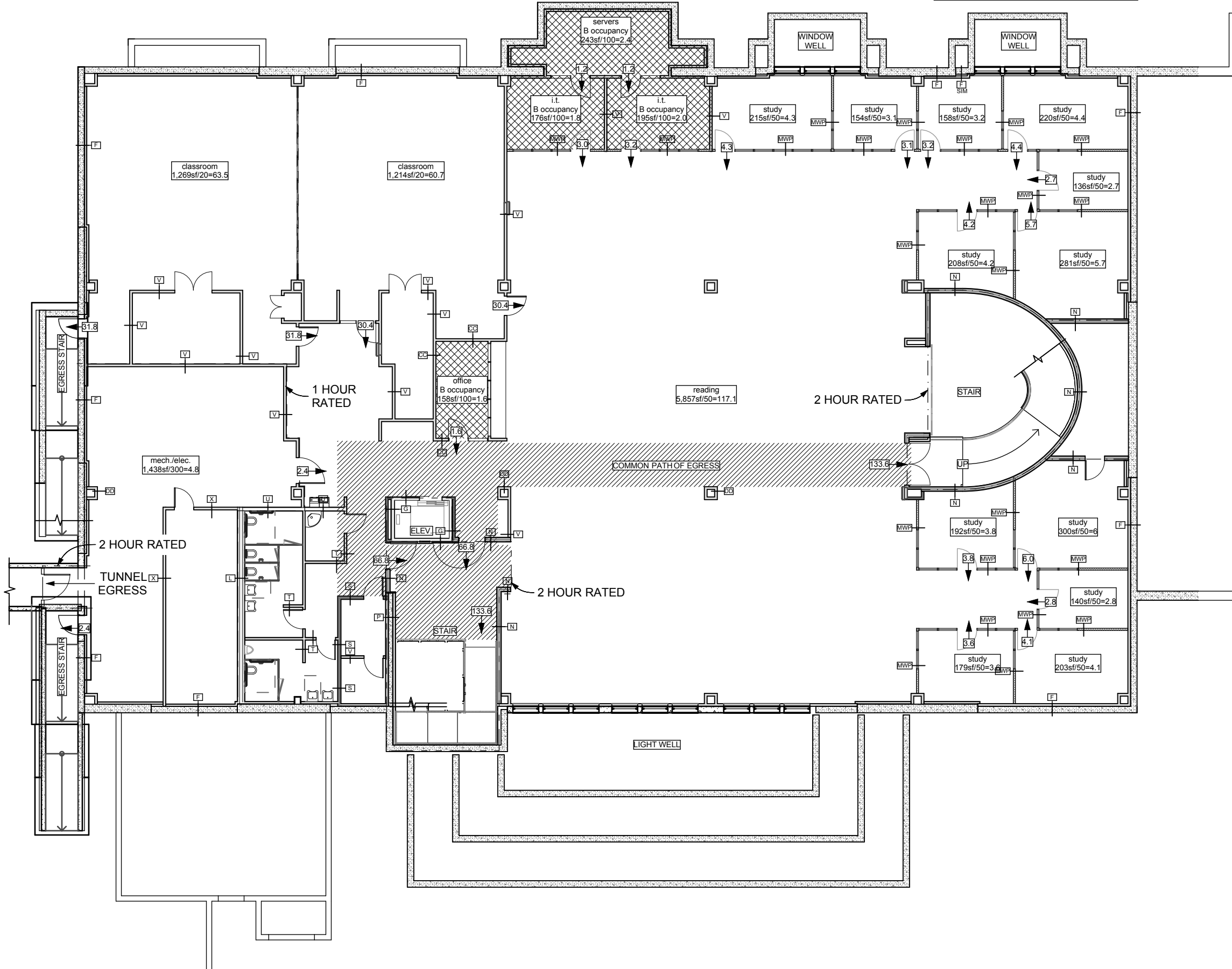


D1 Level 2 Code Review
SCALE: 1/16" = 1'-0"

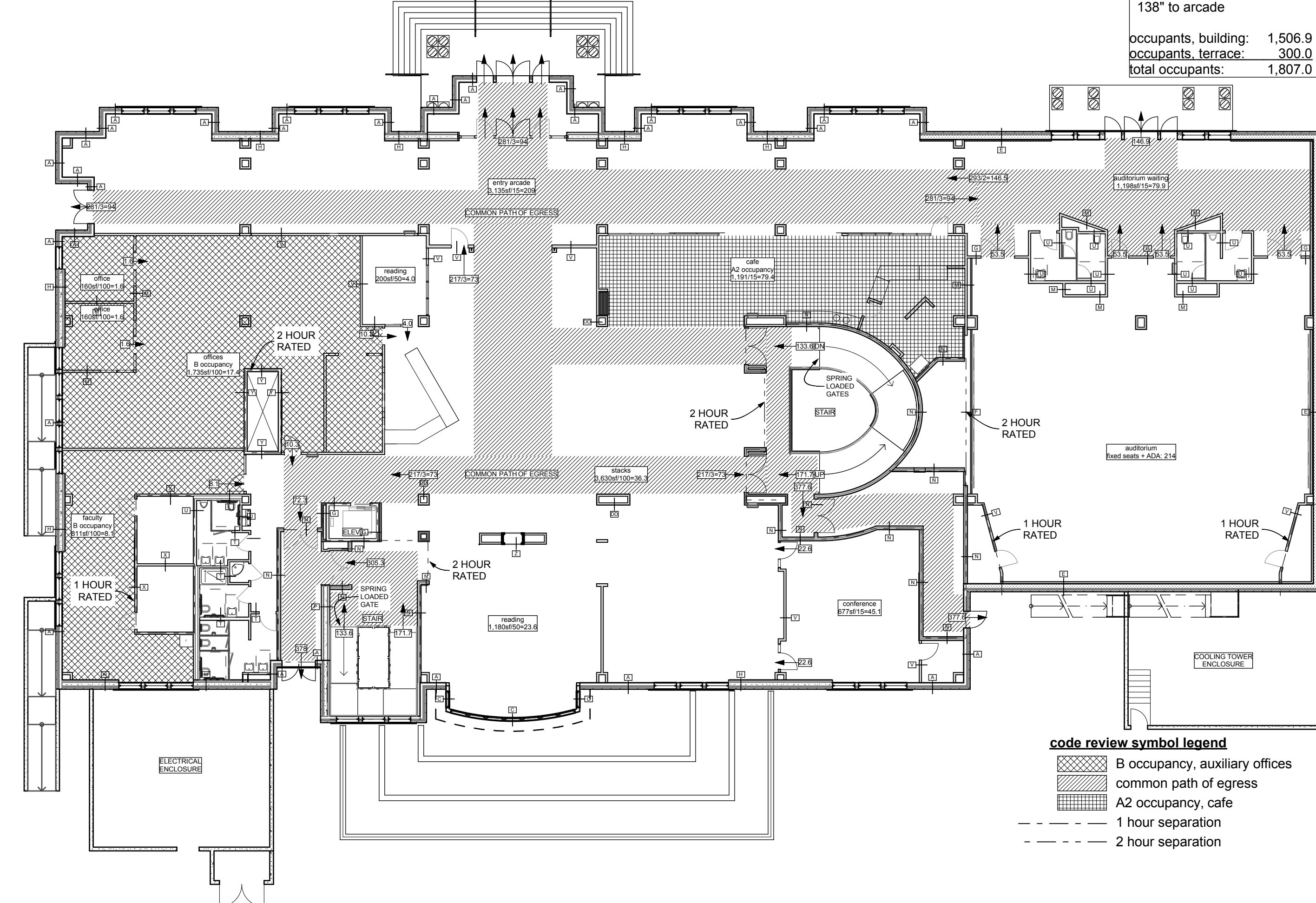


D4 Level 3, Attic, Code Review
SCALE: 1/16" = 1'-0"

main level egress	cumulative egress	cumulative stair egress	main level other egress req.	main level other egress req. (cont.)
stacks: 3,630/100 = 36.3	Level 2 343.4	Level 2 343.4	auditorium: 208 fixed + 6 ADA = 214.0	arcade (3,167/15) = 211.3
reading: 1,380/50 = 27.6	Basement 267.2	Basement (1) 267.2	egress width:	cumulative egress from arcade: 217.1 occ/3 exits = 72.4
mechanical: 1,438/300 = 4.8	Level 1, Main 217.1		214 x 0.15 = 32.1'	waiting: 293.9/2 = 147.0
office/L: 772/100 = 7.8	Occupants 827.7		107 x 0.15 = 16.1'	egress width required:
reading 8,243/50 = 164.8			waiting: 1,198/15 = 79.9	72.4 + 147.0 + 211.3 = 430.7'
total occupants = 301.6			width provided = 96.0'	430.7' x 0.15 = 64.6'
req'd. stair width:			egress width:	egress width provided:
302x0.2 = 60.4'			(214 + 79.9) x 0.15 = 44.1'	192' + 1/2 passage width of 138' to arcade
provided: 261.0'			provided: 128.0'	occupants, building: 1,506.9
req'd. egress width:			+ 1/2 width of 138' to arcade	occupants, terrace: 300.0
302x0.15 = 45.3'				total occupants: 1,807.0
provided: 204.0'				



A1 Basement Code Review
SCALE: 1/16" = 1'-0"



A3 Level 1, Main, Code Review
SCALE: 1/16" = 1'-0"

CODE ANALYSIS

APPLICABLE CODES			
	Year		Year
International Building Code	2006	National Electrical Code	2005
International Mechanical Code	2006	Uniform Code for Building Conservation	2006
International Plumbing Code	2006	Building Conservation	2006
International Fire Code	2006	ADA Accessibility Guidelines	ICC/ANSI A117.1-2003
International Energy Conservation Code	2006		

A. Occupancy and Group: A-3 B A-2

A-3 Occupancy Basis of Total Building Area

Calculated at = 72,218 SF (SEE BELOW)

Total A-3 Occupancy Area = 66,919 SF

Total A-2 Occupancy Area = 1,191 SF

Total B Occupancy Area = 4,108 SF

Total Other Occupancy Area = 5,299 SF

72,218 x 10% = 7,222 SF > 5,299 SF

Change in Use: Yes No X Mixed Occupancy: Yes X No

Special Use and Occupancy (e.g. High Rise, Covered Mall):

B. Seismic Design Category: D Design Wind Speed: 80 mph

C. Type of Construction (circle one):

I A I B I C I D I E I F I G I H I J

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours): IBC Table 602

North: 0 South: 0 East: 0 West: 0

Fire Separation Distance $\geq 30'$ = 0 SEE SHEET # CR100

E. Mixed Occupancies: Nonseparated Uses: X

F. Sprinklers:

Required: X Provided: X Type of Sprinkler System: NFPA 13

G. Number of Stories: 3 w basement Building Height: 56'

Allowed Stories: 3 Allowed Height: 65'

Allowable Story Increase: +1, increase not taken. Allowable story increase 20', increase not taken.

Finished surface of the floor above basement is no more than 12' above grade at any point, except for egress stairs from basement.

H. Actual Area per Floor (square feet):

per Floor (square feet): (1) 16,117 SF BASEMENT

per Floor (square feet): (2) 22,585 SF @ GRADE

per Floor (square feet): (3) 16,681 SF + PATIO (4,500 SF)

per Floor (square feet): (4) 12,335 SF

TOTAL Floor (square feet): 72,218 SF

I. Tabular Area: 77,190 SF $\geq 72,218$ SF

J. Area Modifications:

$I_f = \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$

$I_f = \left[\frac{686'}{749'} - 0.25 \right] \frac{30}{30} = 0.66$

$A_3 = A_1 + [A_1 \times I_f] + [A_1 \times I_f]$

$A_3 = 15,500 + (15,500)(0.66) + \text{NOT USED}$

$A_3 = 15,500 + 10,230 + 0$

$A_3 = 25,730$

b. Sum of the Ratio Calculations for Mixed Occupancies:

Actual Area ≤ 1 A-3 66,919 4,108 1,191

Allowable Area 77,190 62,250 77,190

$0.87 + 0.07 + 0.015 = 0.96 < 1$

c. Total Allowable Area for:

1) First Story: 25,730 SF

2) Second Story: 25,730 SF

3) Third Story: 25,730 SF

4) Fourth Story: 25,730 SF

TOTALS:

with basement: 77,190 SF, without basement: 102,920 SF

d. Unlimited Area Building: Yes No X Code Section:

K. Fire Resistance Rating Requirements for Building Elements (hours):

IBC Table 601, Exception "e": Sprinkler system allowed to be substituted for 1 HR fire resistance rated construction, provided sprinkler system is not used for allowable area or height increase (1 HR substitution for exterior bearing walls not permitted).

See Wall Types, Sheet AE501 for Assembly Listings

See Sheet CR103 for Fire Rated Assemblies.

See Sheet CR104 for Fire Penetration Details

NOTE: Floor and framing members are to have same fire rating as the shaft enclosures that they support, including columns for the entire structural bay.

IBC table 704.3 maximum area of exterior openings.

L. Design Occupant Load: 828

Exit Width Required: 124.2" Exit Width Provided: 224"

M. Minimum Number of Required Plumbing Facilities:

a) Water Closets - Required (m) 9 (f) 15 Provided (m) 13 (f) 16

b) Lavatories - Required (m) 6 (f) 6 Provided (m) 7 (f) 8

c) Bath Tubs or Showers: 1

d) Drinking Fountains - req. 6 prov. 8 Serv. Sinks - req. 6 prov. 6

e) Separate ADA Water Closets: 3

Plumbing Calcs

Level 1 (basement) = 301.4 occupants

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 2 (main) = 720 occupants (A3 640.6, A2: 78.4)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 3 (upper level) = 543.4 occupants (Library + Terrace)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 4 (attic) = 239.6 occupants

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 5 (basement) = 301.4 occupants

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 6 (main) = 720 occupants (A3 640.6, A2: 78.4)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 7 (upper level) = 543.4 occupants (Library + Terrace)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 8 (main) = 720 occupants (A3 640.6, A2: 78.4)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 9 (upper level) = 543.4 occupants (Library + Terrace)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 10 (main) = 720 occupants (A3 640.6, A2: 78.4)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 11 (upper level) = 543.4 occupants (Library + Terrace)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 12 (main) = 720 occupants (A3 640.6, A2: 78.4)

male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

df: 3011 = 301, 1500 = 1

service: 3011 = 301, 1500 = 1

Level 13 (upper level) = 543.4 occupants (Library + Terrace)

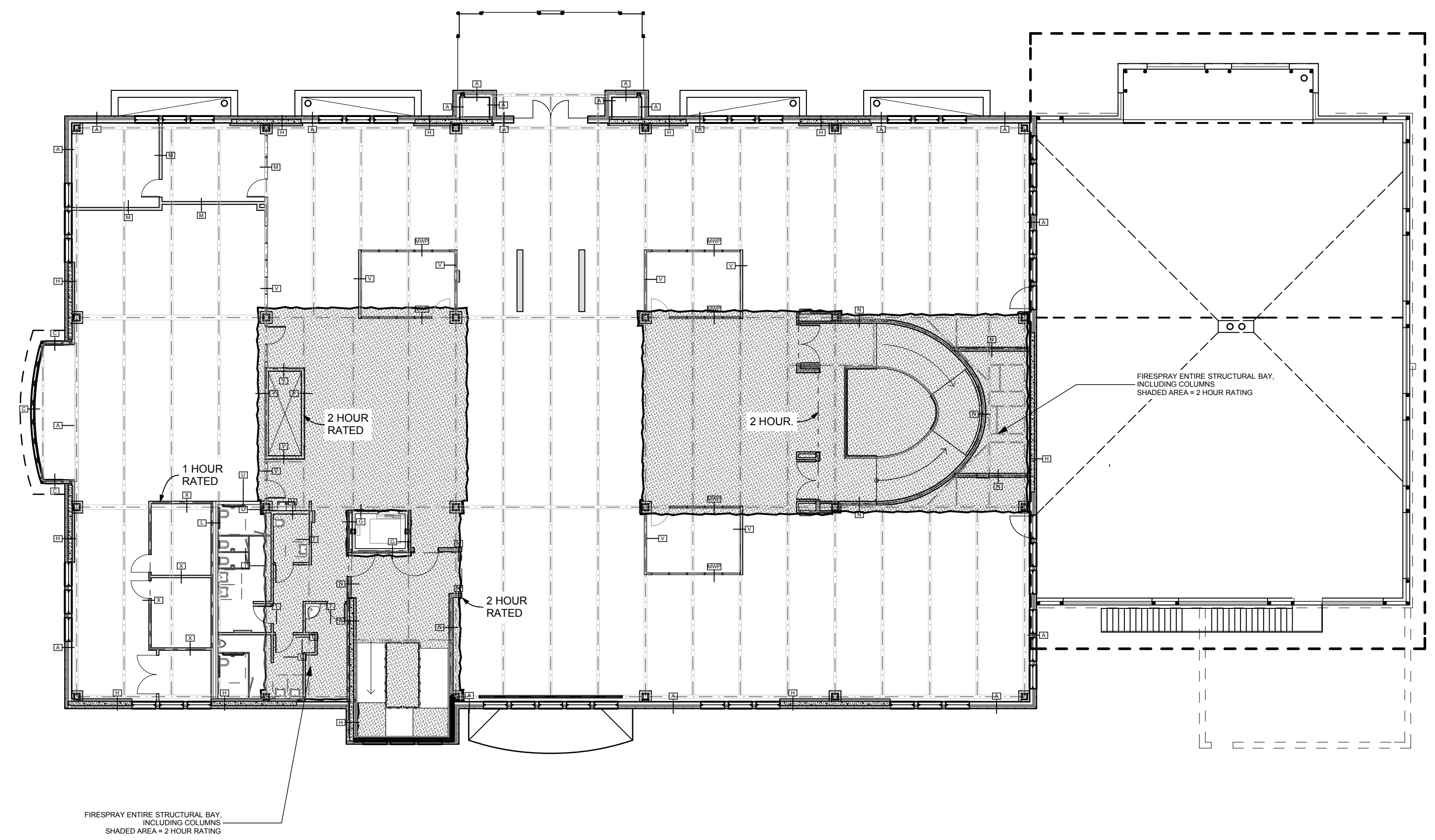
male wc: 5432 = 217.5, 1125 = 2

female wc: 5432 = 217.5, 1125 = 2

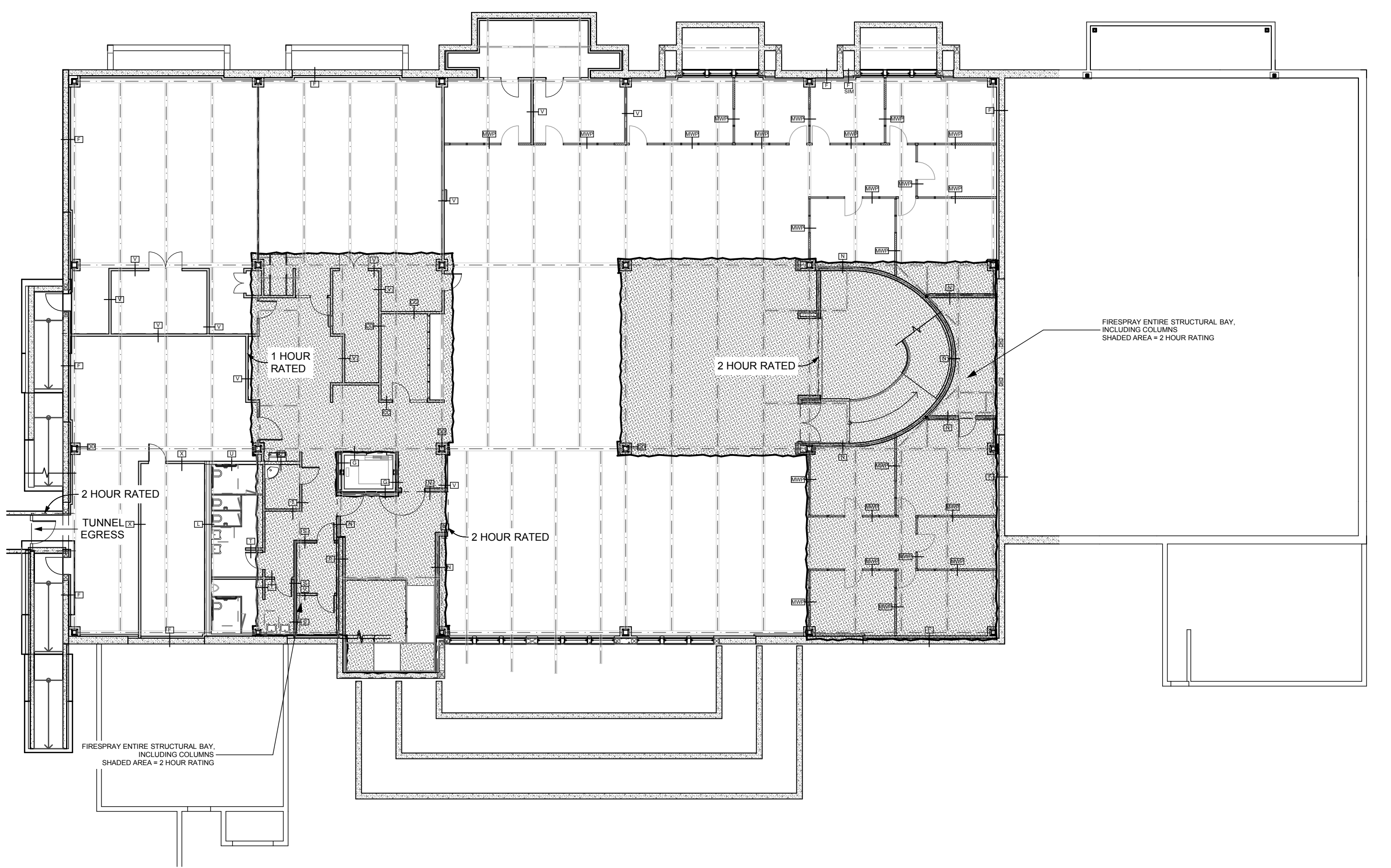
male lav: 3012 = 151, 1200 = 1

female lav: 3012 = 151, 1200 = 1

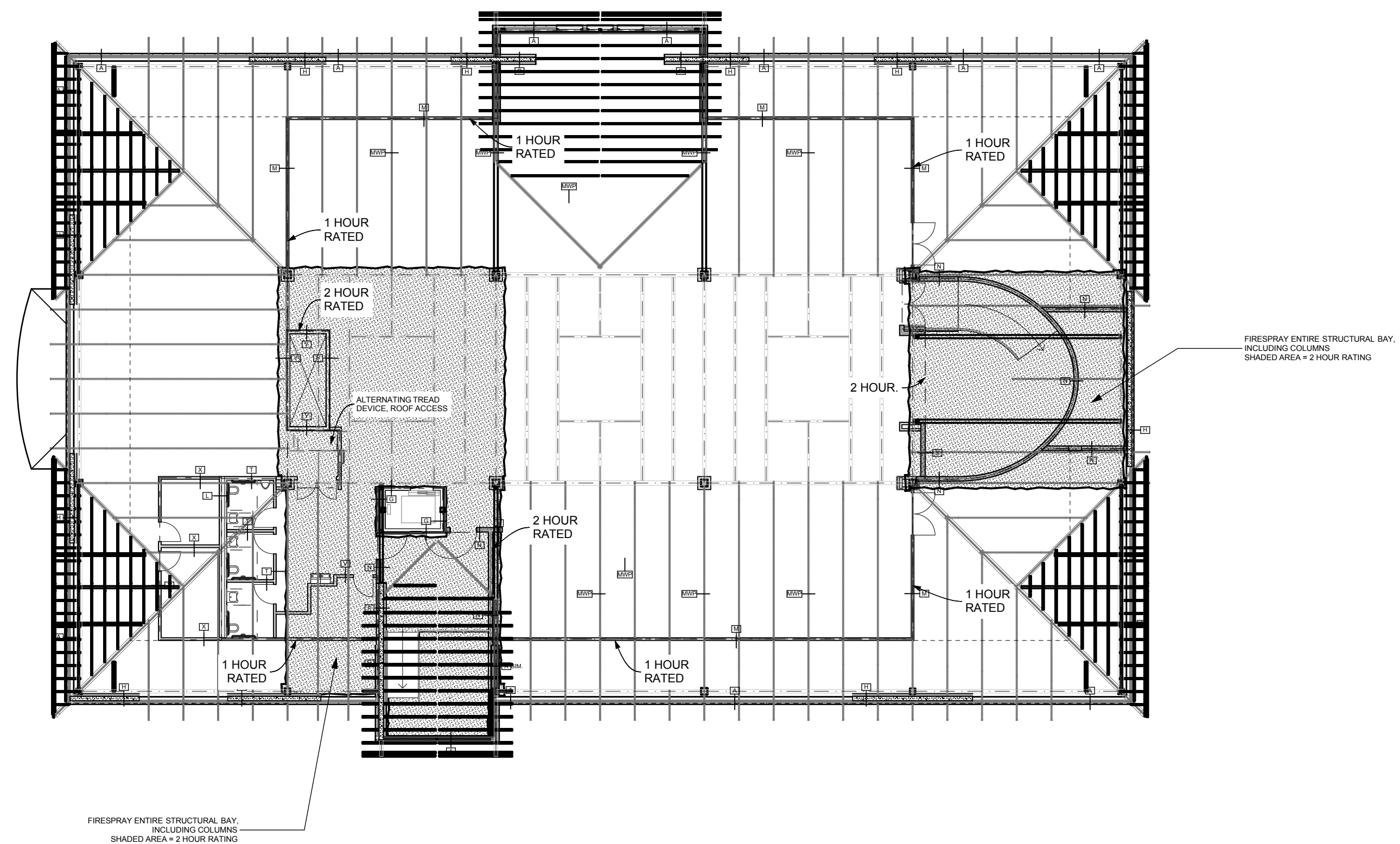
10/13/2008 P:\807-051 Snow College Library\Draw\Arch\807-051 Interior.dwg 10/13/2008



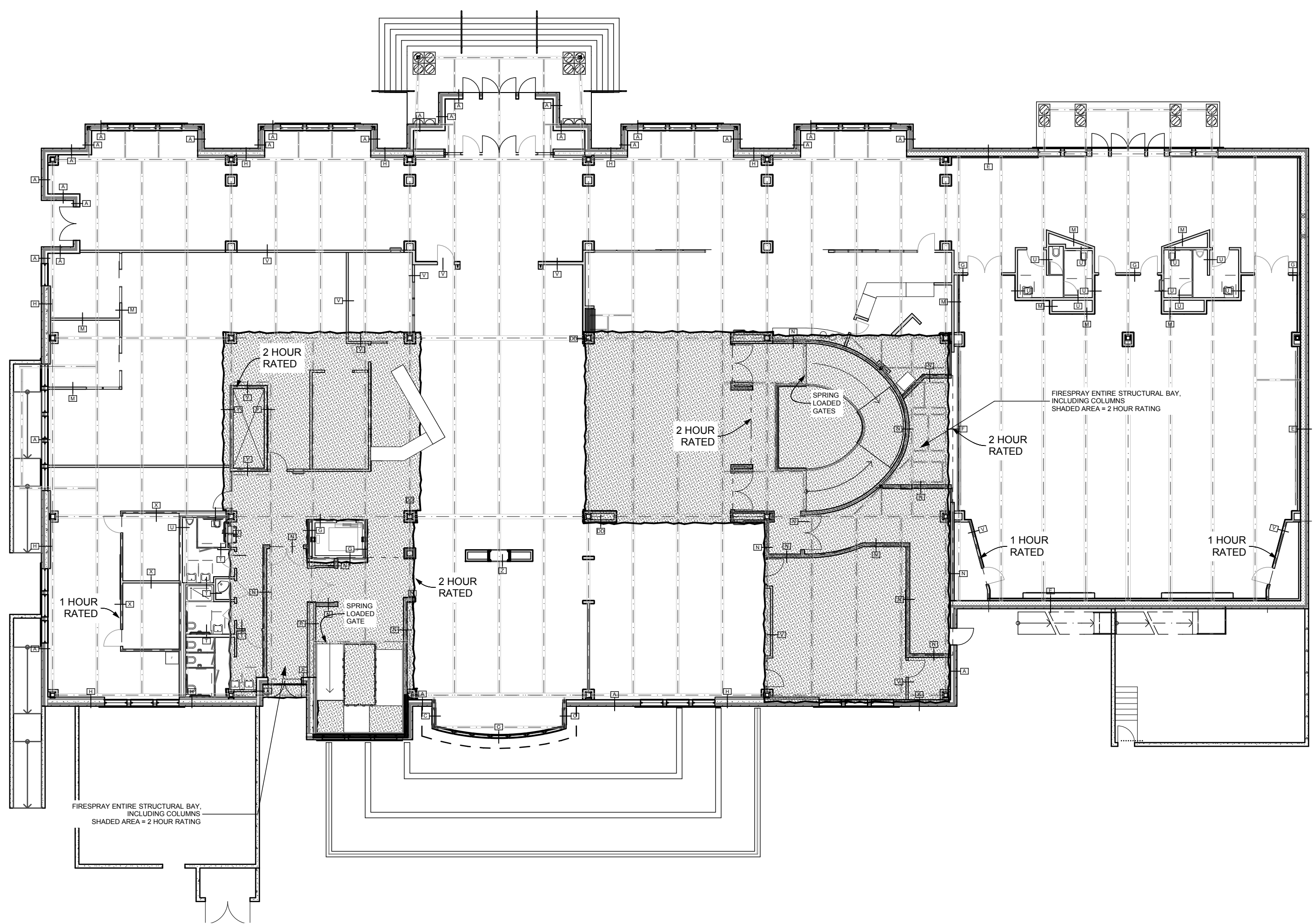
C1 Level 2
SCALE: 1/16" = 1'-0"



A1 Basement
SCALE: 1/16" = 1'-0"



C4 Level 3, Attic/Roof
SCALE: 1/16" = 1'-0"



A4 Level 1, Main Level
SCALE: 1/16" = 1'-0"

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SNOW
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Scottsdale, AZ 85260
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andrea@madcinc.com

STAMP:

PROJECT NAME:
Snow College Library
150 College Avenue
Ephraim, Utah 84627

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WALLS AND INTERIOR PARTITIONS, NONCOMBUSTIBLE			
GA FILE NO. WP 1515	PROPRIETARY ¹	2 HOUR FIRE	55 to 59 FSTC SOUND
GYPSUM WALLBOARD, STEEL STUDS, MINERAL FIBER INSULATION, CEMENTITIOUS BACKER UNIT, CERAMIC TILE Base layer 1/8" proprietary type X gypsum wallboard or gypsum veneer base applied parallel to each side of 3/4" 20 gage steel studs 24" o.c. with 1" Type S drywall screws 24" o.c. 3" proprietary mineral fiber insulation 2.0 pcf. Install 1/8" thick space. Base layer 1/8" proprietary type X gypsum wallboard or gypsum veneer base applied parallel to ONE SIDE with 1/8" Type S drywall screws 12" o.c. Joints offset 24" o.c. from base layer joints. OPPOSITE SIDE: Face layer 1/8" proprietary cementitious backer unit applied at right angles with 1/8" Type S-12 water board screws 8" o.c. Vertical joints offset 24" from base layer vertical joints. Joints covered with glass fiber mesh tape. Ceramic tile 1/4" thick, joints grouted, installed with latex-modified Portland cement mortar or ANSI A308.1 Type 1 organic adhesive. (NLB)			
Thickness: 5/16" Limiting Height: Refer to manufacturer Approx. Weight: 14 psf Fire Test: UL 1812/5-1, -3, 1-21-85, UL Design U443 Field Sound Test: SA-851016, 10-14-85			
PROPRIETARY GYPSUM BOARD Lafarge North America, Inc. 1/8" Firecheck [®] Type C Gypsum Board National Gypsum Company 1/8" Gold Bond [®] Brand FIRE-SHIELD [®] C [®] Gypsum Wallboard Temple-Inland Forest Products Corporation 1/8" SHEETROCK [®] Brand Gypsum Panels, FIRECODE [®] C Core United States Gypsum Company			
GA FILE NO. WP 1520	PROPRIETARY ¹	2 HOUR FIRE	55 to 59 STC SOUND
GYPSUM WALLBOARD, RESILIENT CHANNELS, STEEL STUDS, MINERAL FIBER INSULATION Resilient channels 24" o.c. attached at right angles to ONE SIDE of 3/4" 20 gage steel studs 24" o.c. with one 1/8" Type S-12 drywall screw at each stud. Base layer 1/8" proprietary type X gypsum wallboard or gypsum veneer base applied at right angles to proprietary type X gypsum wallboard or gypsum veneer base applied at right angles to gypsum wallboard or gypsum veneer base applied at right angles to channels with 1/8" Type S drywall screws 12" o.c. 3" mineral fiber insulation 2.0 pcf. Install 1/8" thick stud space. OPPOSITE SIDE: One layer 1/8" proprietary type X gypsum wallboard applied parallel to studs with 1" Type S-12 drywall screws 12" o.c. Joints staggered 24" each layer and side. (NLB)			
Thickness: 5/16" Limiting Height: Refer to manufacturer Approx. Weight: 8 psf Fire Test: UL 1812/5-1, -3, 1-21-85, UL Design U443 Sound Test: IAL TL09-215, 9-2-83			
PROPRIETARY GYPSUM BOARD BFG America Inc. 1/8" ProRock [®] Type C Gypsum Panels G-F Gypsum 1/8" ToughRock [®] Frequent C [®] Lafarge North America, Inc. 1/8" Firecheck [®] Type C Gypsum Board National Gypsum Company 1/8" Gold Bond [®] Brand FIRE-SHIELD [®] C [®] Gypsum Wallboard Temple-Inland Forest Products Corporation 1/8" SHEETROCK [®] Brand Gypsum Panels, FIRECODE [®] C Core United States Gypsum Company			
GA FILE NO. WP 1521	GENERIC	2 HOUR FIRE	55 to 59 STC SOUND
GYPSUM WALLBOARD, STEEL STUDS Base layer 1/8" type X gypsum wallboard or gypsum veneer base applied parallel to each side of 3/4" steel studs 24" o.c. with 1" Type S drywall screws 24" o.c. Base layer 1/8" type X gypsum wallboard or gypsum veneer base applied parallel to each side with 1/8" Type S drywall screws 12" o.c. Joints staggered 24" each layer and side. Sound tested with 3/16" glass fiber friction fit in stud space. (NLB)			
Thickness: 5/16" Limiting Height: Refer to Section IV Approx. Weight: 9 psf Fire Test: See WP 1545 UL C-7-1-54, UL C-871-69, 3-26-81, UL C-Design W414 Sound Test: NR02 815-NV, 2-3-81			

¹ Consult the manufacturer for more detailed information on proprietary products.

GA-600-2003

System No. W-L-5029
F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1/2, 3/4, 1, 1-1/2 and 1-3/4 Hr (See Item 3)
L Rating At Ambient — 4 CFMSq Ft
L Rating At 400° F — Less Than 1 CFMSq Ft

SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.
 - B. Gypsum Board — 5/8 in. thick, 4 ft wide, with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 18-5/8 in.
2. Through Penetrants — One metallic pipe or tubing to be centered within the freestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
 - A. Steel Pipe — Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe — Nom 12 in. diam (or smaller) cast or ductile iron pipe.
 - C. Copper Tubing — Nom 8 in. diam (or smaller) Type L (or heavier) copper tubing.
 - D. Copper Pipe — Nom 8 in. diam (or smaller) Regular (or heavier) copper pipe.
3. Pipe Covering — Nom 1, 1-1/2 or 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacked on the outside with an all service jacked. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing top tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

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System No. W-L-5029
F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1/2, 3/4, 1, 1-1/2 and 1-3/4 Hr (See Item 3)
L Rating At Ambient — 4 CFMSq Ft
L Rating At 400° F — Less Than 1 CFMSq Ft

See Pipe and Equipment Covering — Materials (BRGU) category in the Building Materials Directory for the names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

The hourly T Rating of the freestop system is dependent on the hourly fire rating of the wall assembly in which it is installed, the size and type of through penetrant and the pipe covering thickness, as shown in the table below:

Wall Assembly Rating Hr	Through Penetrant		Pipe Covering Thickness		Annular Space		T Rating Hr
	Type*	Max Diam In.	Min In.	Max In.	Min In.	Max In.	
1	A	4	1	0	1-1/2	1/2	1
1	B or C	2	1 or 1-1/2	0	1-1/2	1/2	1
1	A	4	1-1/2	0	1-1/2	1	1
1	A	12	2	0	1-7/8	3/4	1
1	B or C	4	2	0	1-7/8	1	1
2	A	4	1	0	1-1/2	1	1
2	B or C	4	1 or 1-1/2	0	1-1/2	1	1
2	B or C	6	2	0	1-7/8	1	1
2	A	4	1-1/2	0	1-1/2	1-3/4	1
2	A	12	2	0	1-7/8	1-1/2	1
2	B or C	6	2	0	1-7/8	1	1

*Indicates penetrant type as listed in Item 2.
 3A. Pipe Covering — (Not Shown) — As an alternate to Item 3, max 2 in. thick cylindrical calcium silicate (min 14 pcf) units sized to the outside diam of the pipe or tube may be used. Pipe insulation secured with stainless steel bands or min 8 AWG stainless steel wire spaced max 12 in. OC. When the alternate pipe covering is used, the T Rating shall be determined from the table above.
 See Pipe and Equipment Covering — Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
 4. Fill Void or Cavity Material — Sealant — Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and gypsum board, a min 1/2 in. diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.
 HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — FS-One Sealant
 *Bearing the UL Classification Mark

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BUXUV.D205 - Fire Resistance Ratings Page 1 of 2

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See General Information for Fire Resistance Ratings

Design No. D205
 November 20, 2002

BUXUV.D205
Fire Resistance Ratings

Fire Resistance Ratings

Design No. D205
 November 20, 2002

Restrained Assembly Rating - 2 hr
Unrestrained Assembly Rating - 2 hr
Unrestrained Beam Rating - 4 hr

Load Restricted — Assembly evaluated in accordance with Working Stress Design methods. For use under Limit-States Design methods refer to information under Guide BXUV.C.

SECTION A-A

***DIMENSION BETWEEN UNDERSIDE OF BEAM AND TOP OF CEILING TILE**

Beam — W20x27, min size

1. Sand-Gravel Concrete — Siliceous or carbonate aggregate, 2400, 50 kg/m³, 28 Mpa min compressive strength.

2. Steel Floor Units — (Guide No. 40 U18.19), Noncorrosive floor units alternating one fluted section 1.52 mm thick, 610 mm wide to one valular section 1.22/1.52 mm, 610 mm wide. Welded to supports 300 mm OC. Adjacent units butt-jointed 900 mm OC. The thickness of the floor units may be reduced to a min of 0.5/0.5/3.0 mm (cast/steel and 3.0 mm (fluted).

VIEW/SEC CORP

3. Acoustical Material — (Guide No. 40 U18.1), Two-sided light-tough protection box, made from 18 mm thick material, measuring 600 mm by 1200 mm by approximately 150 mm in depth, assembled 60 mm common nails.

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 BUXUV.D205 - Fire Resistance Ratings Page 2 of 2

Section 100 mm OC, two-headed alternately at 45° angles.

CERTAINTED CEILING

4. Light-Fluore Value — 1.6 mm painted steel channels, secured to web of the suspension members surrounding the light fixture, and located at midspan of each fixture.

5. Light Fixtures — Recessed type, 600 mm by 1200 mm size, manufactured from steel, 0.8 mm thick. Spacing not to exceed 2.5 m²/10 m² of ceiling area.

6. Hanger Wire — 2.6 mm, located at every intersect in of the suspension system members, not over 1200 mm OC in any one direction and 600 mm OC in the other, at the ends of the suspension system members near the walls, and at all four corners of light fixtures. Additional wires shall be attached at the centre of each 1500 mm long cross-tee.

7. Steel Framing Members — (Guide No. 40 U18.18), Main tees provided in 3600 mm lengths and cross tees provided in 1500 mm, 1300 mm and 600 mm lengths, Min clearance to walls 8 mm. Each installed 3000 mm length or less of main tee shall incorporate an expansion joint.

RAILEY METAL PRODUCTS LTD

COC INC

CHICAGO METALLIC CORP

8. Acoustical Material — (Guide No. 40 U18.1), Normally 600 mm by 1200 mm by 18 mm, or 500 mm by 1500 mm by 18 mm. Border tile supported by 0.6 mm, 40 mm deep steel channels, 25 mm bottom leg, and 18 mm top leg, spaced with 0.6 mm, 40 mm deep, 100 mm long steel channels.

CERTAINTED CEILING

9. Hold-Down Clips — 0.4 mm spring steel, spaced over main beams, one per 600 mm length of tile.

10. Outlet Boxes and Fittings for Service Penetrations (not shown) — Where required, labelled outlet boxes and fittings may be installed as specified for the individual manufacturers listed under Guide No. 40 U19.13.

Last Updated on 2002-11-20

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See General Information for Fire Resistance Ratings - ANSUL/UL 263

Design No. U432
 September 26, 2006

BUXUV.U432
Fire Resistance Ratings - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

- Authorities having jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, systems, devices, and materials.
- Authorities having jurisdiction should be consulted before construction.
- Fire resistance test results and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot address every construction feature encountered in the field.
- When field review areas, it is recommended that the assistance of the technical service staff provided by the product manufacturer be sought for the design.
- The Guide Information includes specific information for each product category and each group of assemblies. The Guide Information includes specific information concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSUL/UL 263

Design No. U432
 September 26, 2006

Bearing Wall Rating — 1 Hr (See Item 2)
Nonbearing Wall Rating — 1 Hr (See Item 2)
Load Restricted for Canadian Applications — See Guide BXUV.C

1. Floor and Ceiling Runners — (Not shown) — Channel shaped, fabricated from min 0.029 in. thick, bare metal thickness (No. 20 HRS) corrosion-protected steel, that provides a rigid structure connection between steel studs and adjacent assemblies such as floors, ceilings and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. OC.

2. Steel Studs — Min 0.029 in. thick, bare metal thickness (No. 20 HRS) corrosion-protected steel studs, min 3-1/2 in. wide, cold formed, designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute (AISI). All design details enhancing the structural integrity of the wall assembly, including the steel design of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing shall not exceed 24 in. OC. Studs attached to floor and ceiling runners with 1/2 in. long Type S-12 steel screws on both sides of the studs or by

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 BUXUV.U432 - Fire Resistance Ratings - ANSI/UL 263 Page 2 of 2

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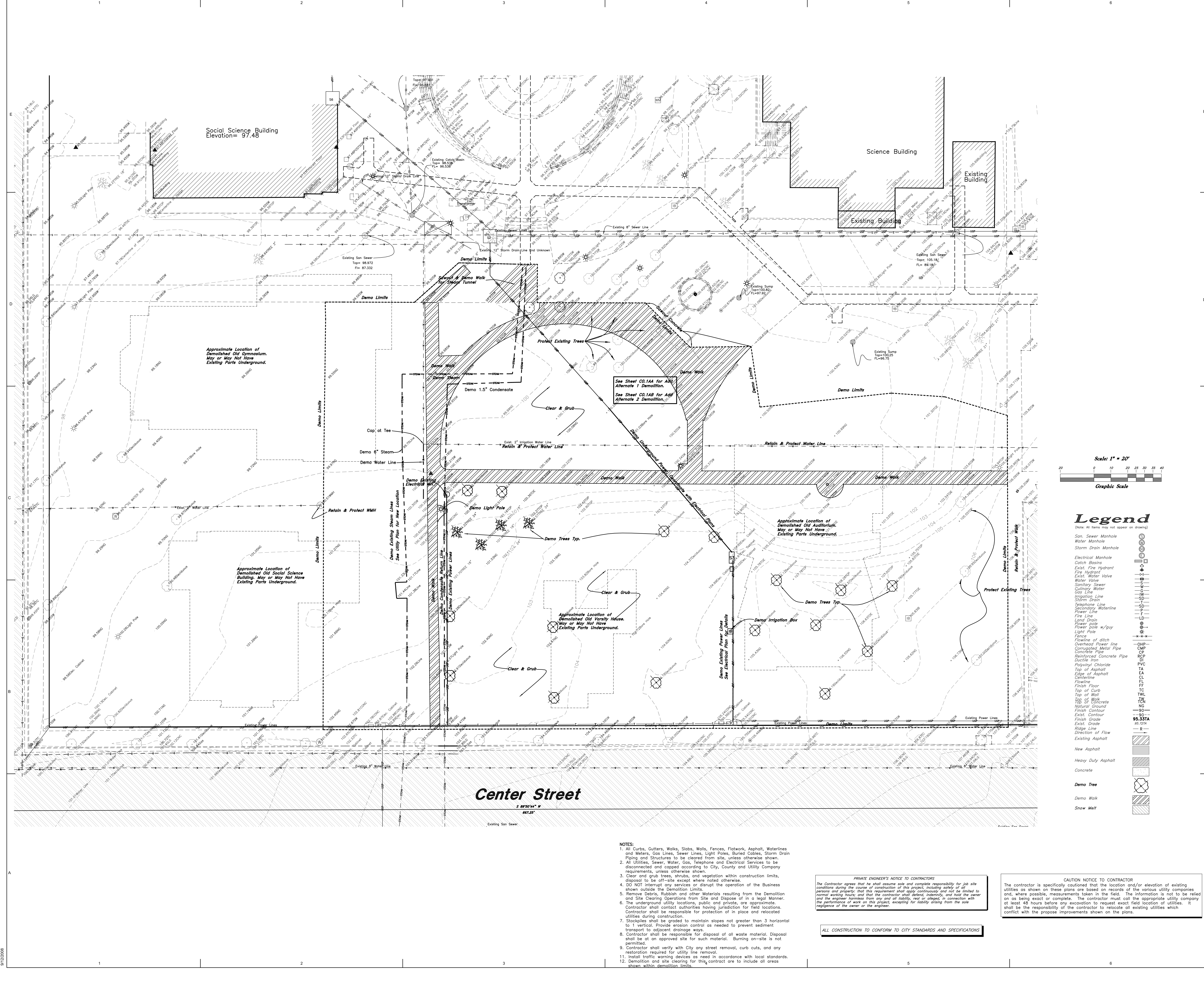
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DFCM PROJECT NUMBER:

07258700

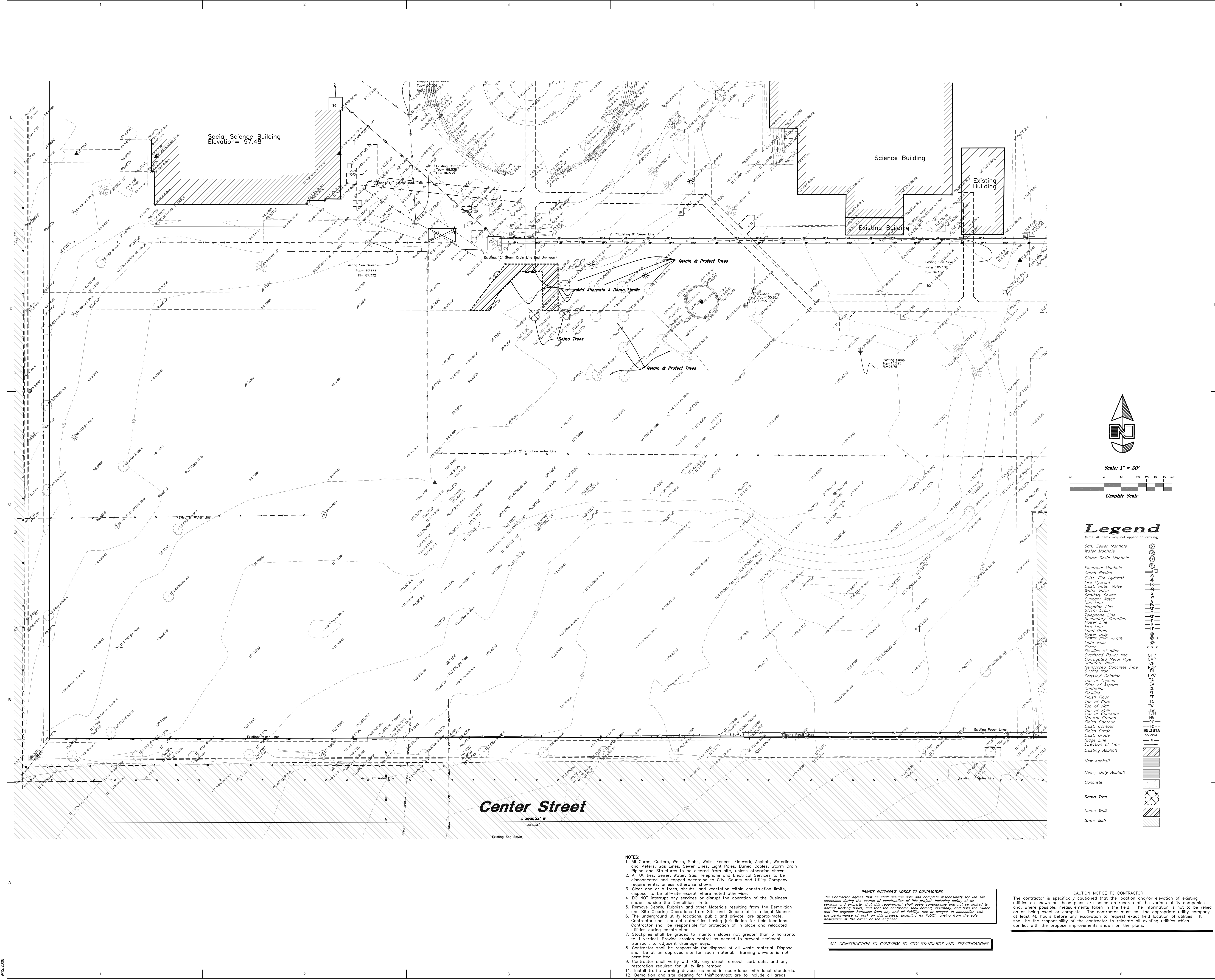
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ISSUE DATE:

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B07-051
DFCM PROJECT NUMBER:
07258700
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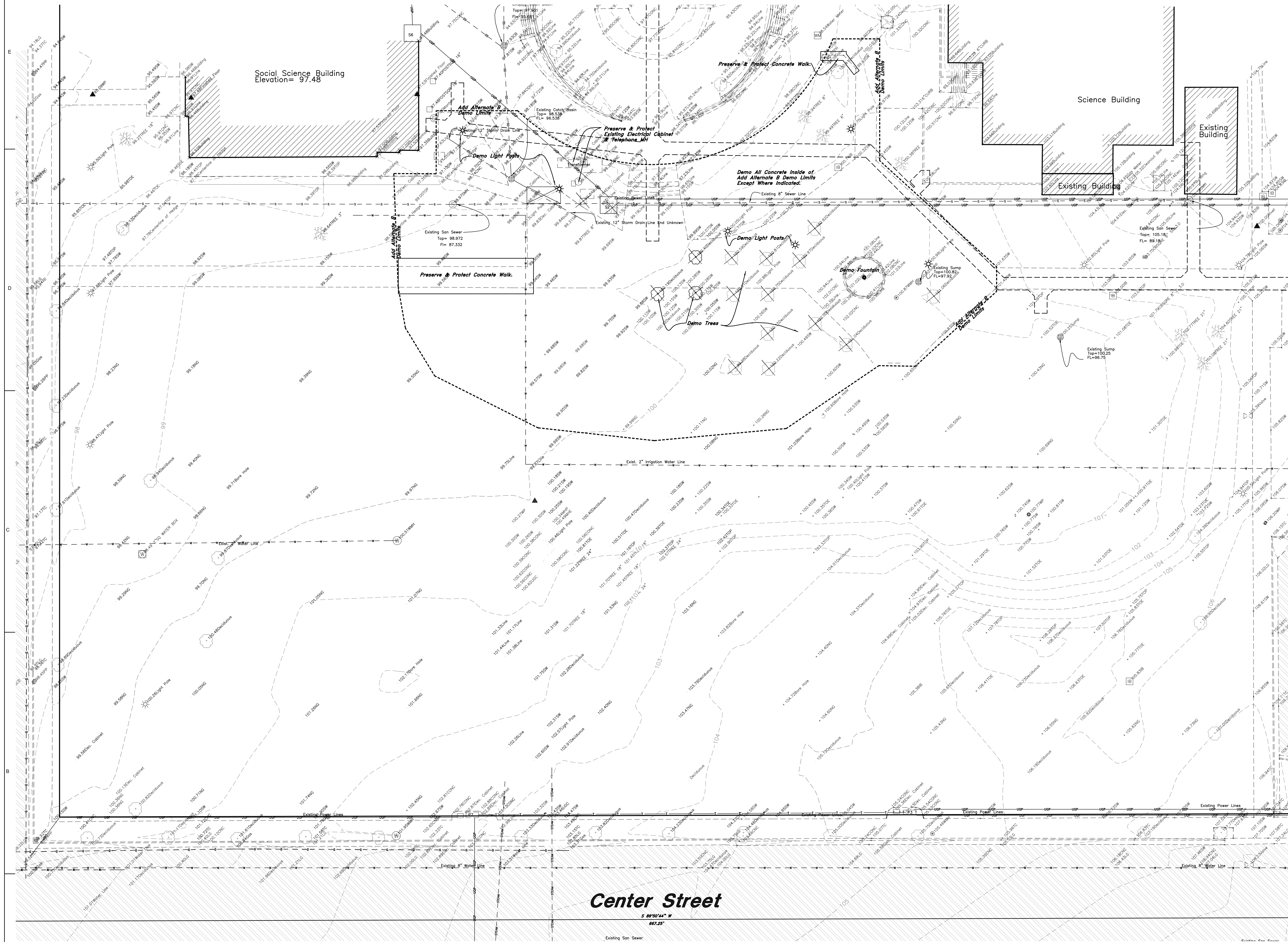
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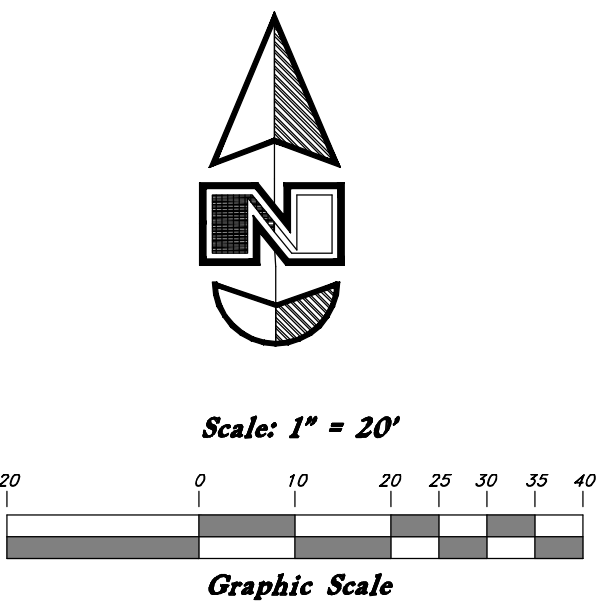
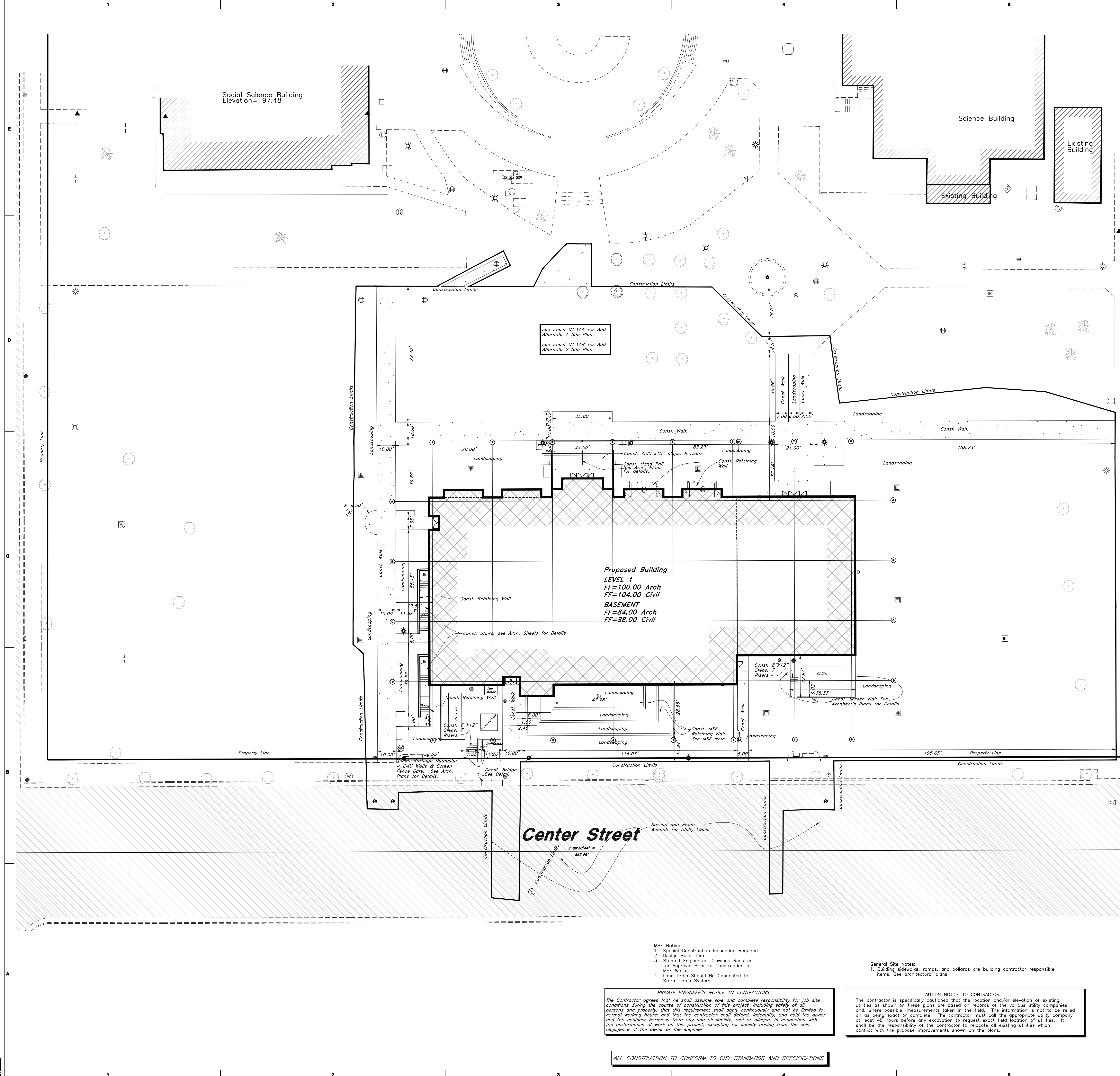
PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property. The Contractor shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify, and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

ALL CONSTRUCTION TO CONFORM TO CITY STANDARDS AND SPECIFICATIONS

CAUTION NOTICE TO CONTRACTOR

The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility company at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the propose improvements shown on the plans.



Legend	
(Note: All items may not appear on drawing)	
San. Sewer Manhole	⊙
Water Manhole	⊙
Storm Drain Manhole	⊙
Electrical Manhole	⊙
Catch Basins	⊙
Exist. Fire Hydrant	⊙
Exist. Water Valve	⊙
Water Valve	⊙
Sanitary Sewer	—
Sanitary Sewer	—
Gas Line	—
Impassible Line	—
Storm Drain	—
Telephone Line	—
Secondary Waterline	—
Power Line	—
Fire Line	—
Land Drain	—
Power pole w/guy	⊙
Light Pole	⊙
Fence	—
Flowline of ditch	—
Overhead Power line	—
Corrugated Metal Pipe	—
Reinforced Concrete Pipe	—
Ductile Iron	—
Polyvinyl Chloride	—
Top of Asphalt	—
Edge of Asphalt	—
Centerline	—
Finish Floor	—
Top of Curb	—
Top of Wall	—
Top of Walk	—
Natural Ground	—
Finish Contour	—
Exist. Contour	—
Exist. Grade	—
Ridge Line	—
Direction of Flow	—
Existing Asphalt	—
New Asphalt	—
Heavy Duty Asphalt	—
Concrete	—
Demo Tree	⊗
Demo Walk	—
Snow Melt	—

Site Data Table:
Total Area - 103,042 sf
Total Building Area - 22,638 sf
Total Landscaping Area - 80,225 sf



MSE Notes:
1. Special Construction Inspection Required.
2. Design Build Item
3. Stamped Engineer's Drawings Required for Approval Prior to Construction of MSE Walls.
4. Land Drain Should Be Connected to Storm Drain System.

General Site Notes:
1. Building sidewalks, ramps, and bollards are building contractor responsible items. See architectural plans.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS
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ALL CONSTRUCTION TO CONFORM TO CITY STANDARDS AND SPECIFICATIONS

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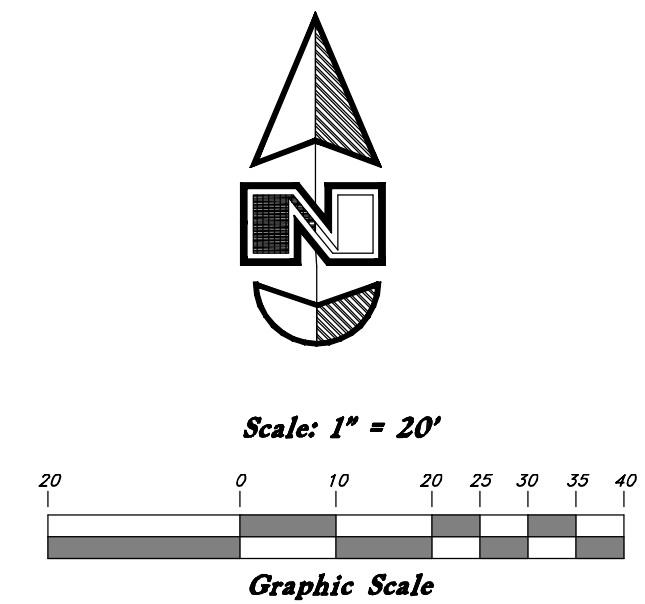
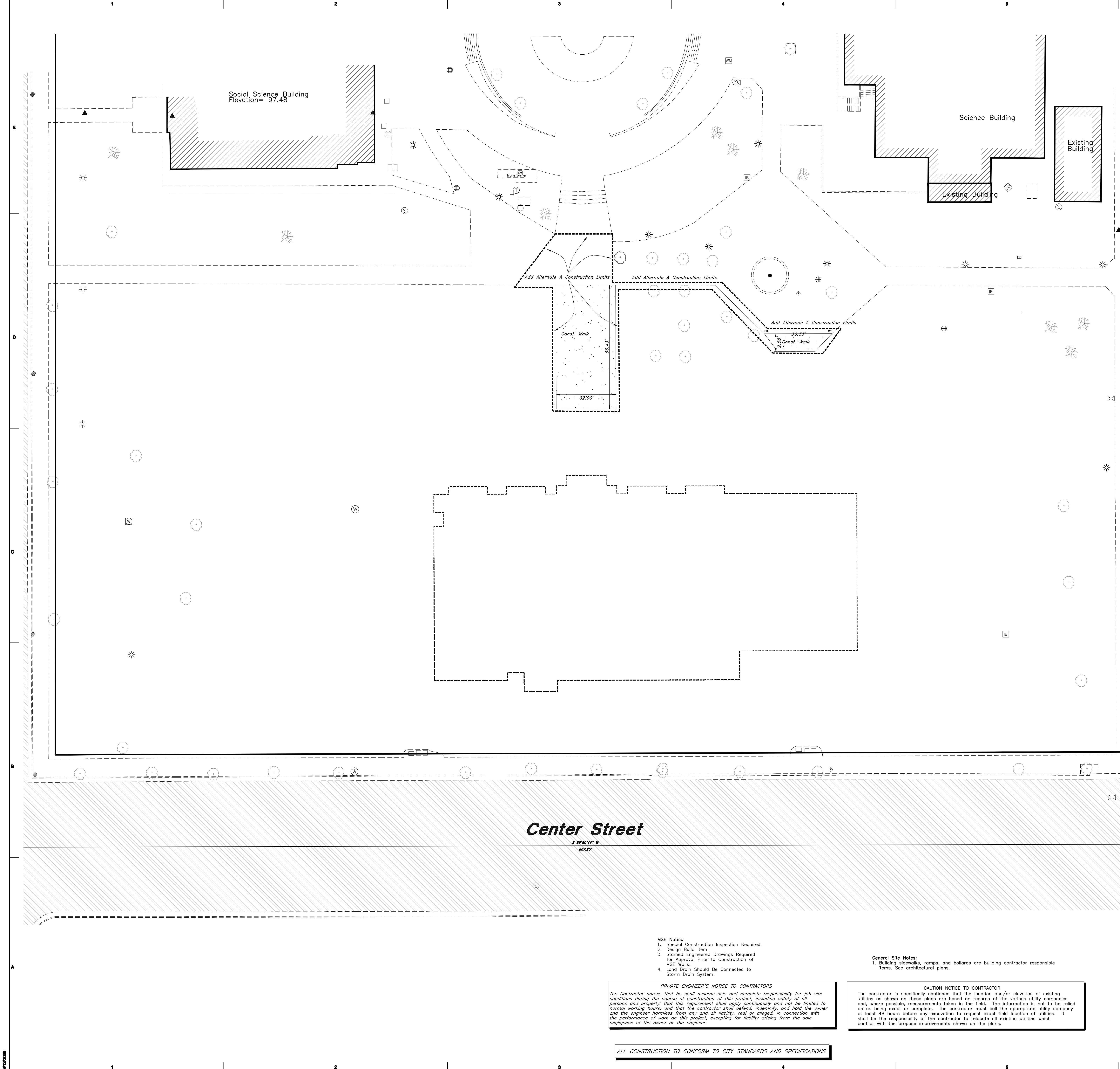
PROJECT NAME:
Snow College Library

150 College Avenue
Ephraim, Utah 84627

REVISIONS:

100% CD, September 15, 2008
100% CD Review, August 4, 2008
ISSUE DATE:
SEPTEMBER 15 2008, 100% CD
ARCHITECT'S PROJECT NUMBER:
B07-051
DFCM PROJECT NUMBER:
07258700
SHEET TITLE:
Site Plan

SHEET NUMBER:
C1.1



Legend

- (Note: All items may not appear on drawing)
- San. Sewer Manhole
 - Water Manhole
 - Storm Drain Manhole
 - Electrical Manhole
 - Catch Basins
 - Exist. Fire Hydrant
 - Exist. Water Valve
 - Water Valve
 - Sanitary Sewer
 - Sanitary Sewer
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 - Existing Asphalt
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 - Heavy Duty Asphalt
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 - Demo Tree
 - Demo Walk
 - Snow Melt

Site Data Table:
Total Area = 103,042 sf
Total Building Area = 22,638 sf
Total Landscaping Area = 80,225 sf



Vicinity Map

NOTE:
1. Special Construction Inspection Required.
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STAMP:

PROJECT NAME:
Snow College Library

150 College Avenue
Ephraim, Utah 84627

REVISIONS:

100% CD, September 15, 2008
100% CD Review, August 4, 2008
ISSUE DATE:

SEPTEMBER 15 2008, 100% CD
ARCHITECT'S PROJECT NUMBER:

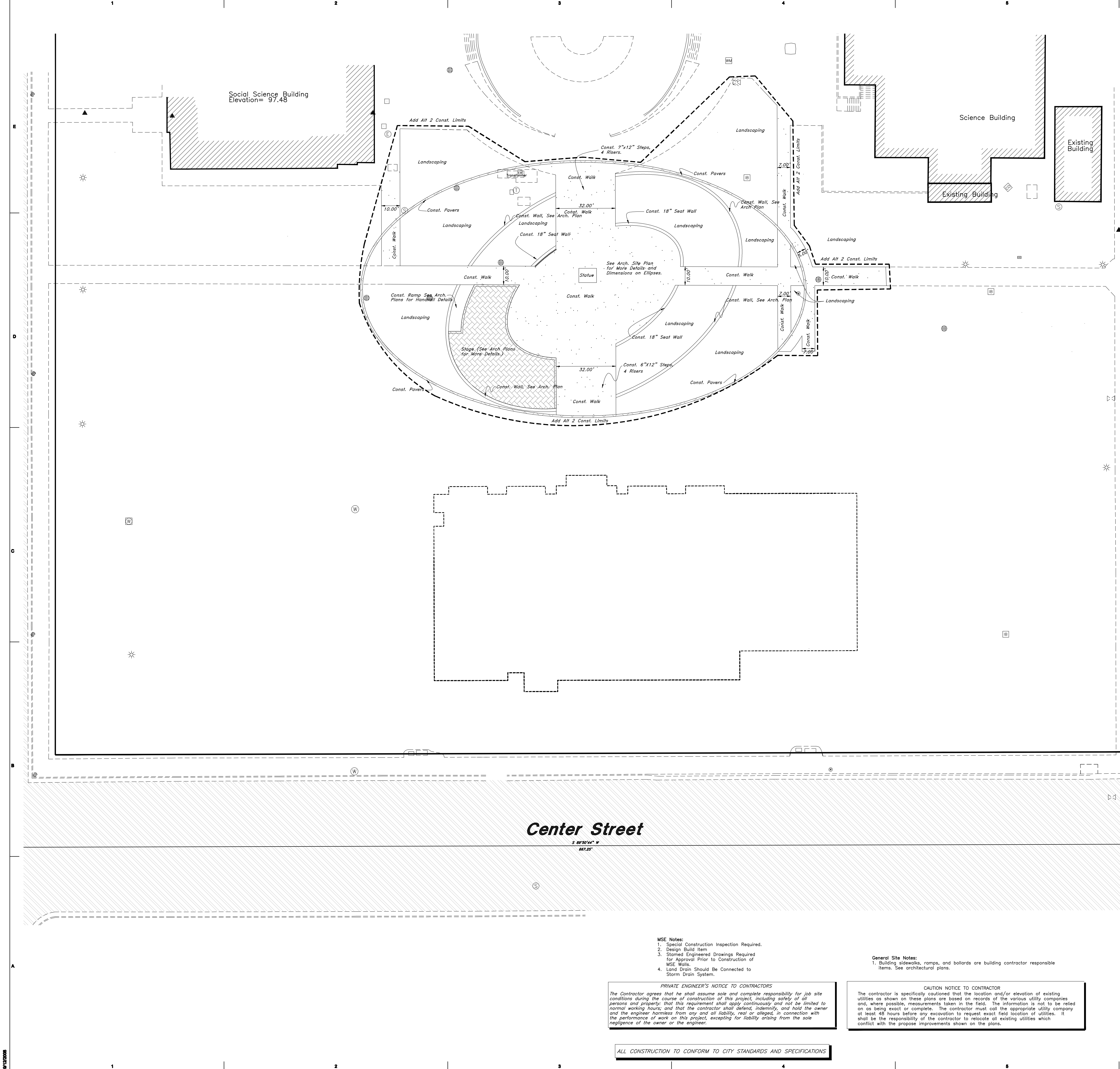
B07-051
DFCM PROJECT NUMBER:
07258700

SHEET TITLE:

Site Plan
Add Alternate A

SHEET NUMBER:

C1.1-AA



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STAMP:

PROJECT NAME:
Snow College Library

**150 College Avenue
Ephraim, Utah 84627**

REVISIONS:

NO.	DATE	DESCRIPTION
1	100% CD, September 15, 2008	
2	100% CD Review, August 4, 2008	

ISSUE DATE:
SEPTEMBER 15 2008, 100% CD

ARCHITECT'S PROJECT NUMBER:
B07-051

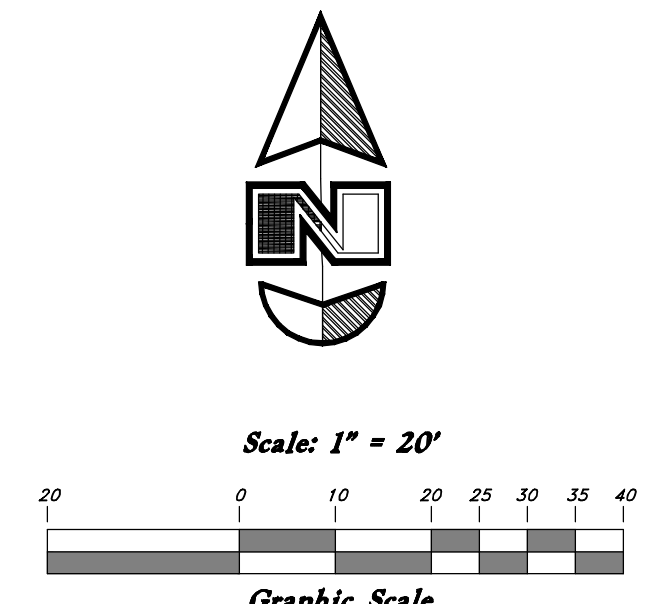
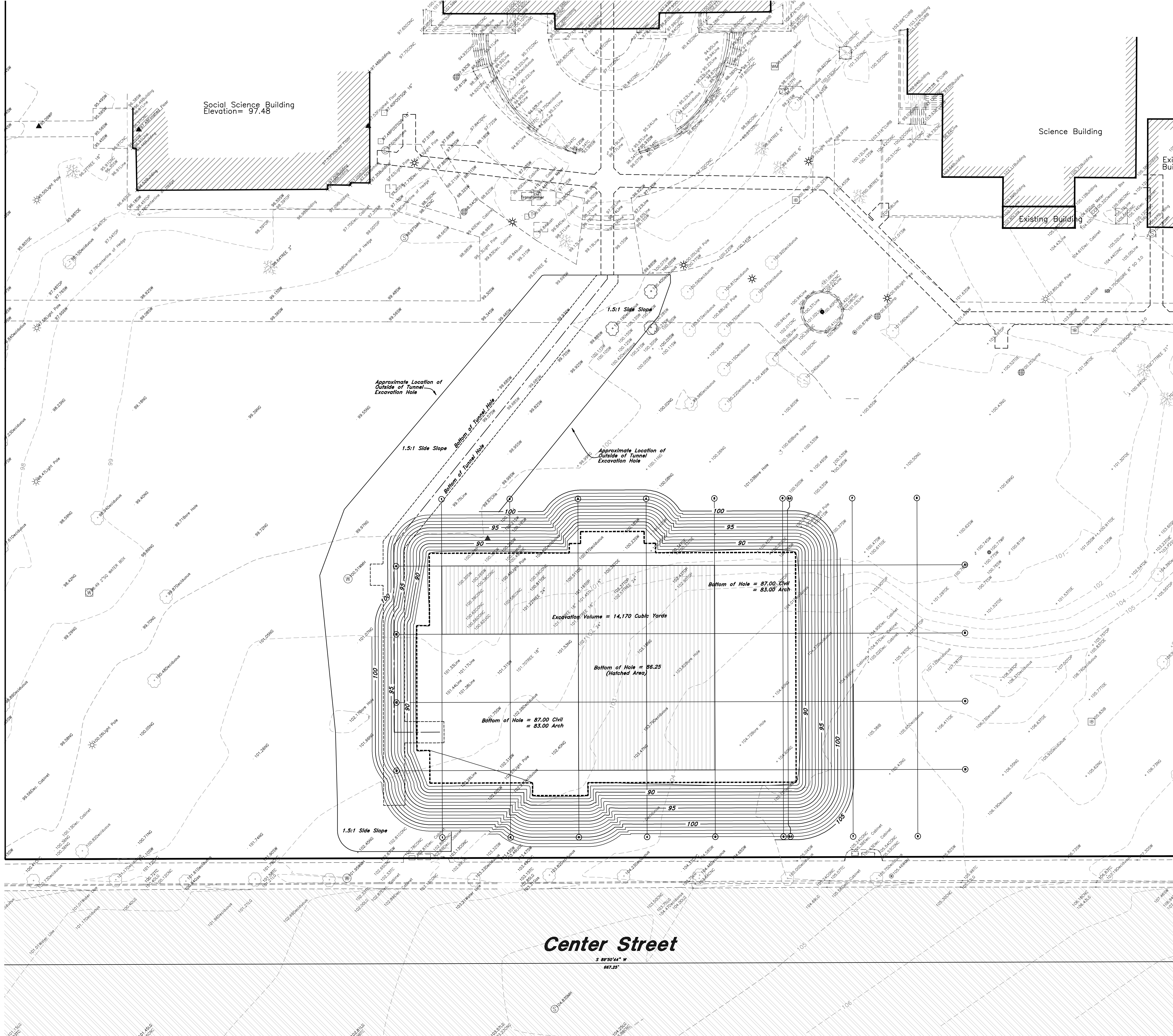
DFCM PROJECT NUMBER:
07258700

SHEET TITLE:
Site Plan
Add Alternate B

SHEET NUMBER:
C1.1-AB

Site Data Table:
Total Area - 103,042 sf
Total Building Area - 22,638 sf
Total Landscaping Area - 80,225 sf

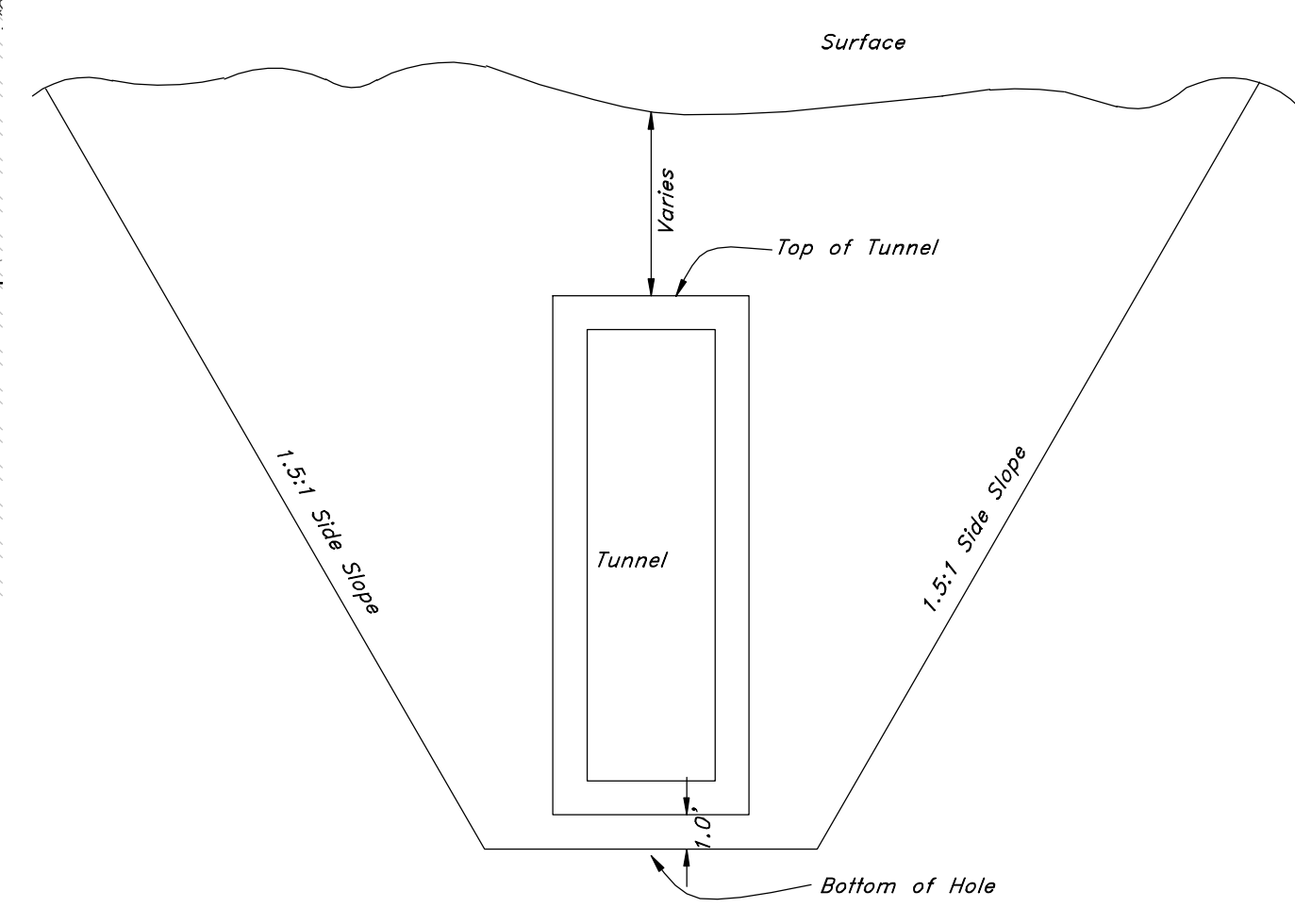
Vicinity Map



Legend

- (Note: All items may not appear on drawing)
- San, Sewer Manhole
 - Water Manhole
 - Storm Drain Manhole
 - Electrical Manhole
 - Catch Basins
 - Exist. Fire Hydrant
 - Exist. Water Valve
 - Water Valve
 - Sanitary Sewer
 - Gas Line
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 - Finish Floor
 - Top of Curb
 - Top of Wall
 - Top of Walk
 - Top of Concrete
 - Natural Ground
 - Finish Contour
 - Exist. Contour
 - Finish Grade
 - Exist. Grade
 - Ridge Line
 - Direction of Flow
 - Existing Asphalt
 - New Asphalt
 - Heavy Duty Asphalt
 - Concrete
 - Demo Tree
 - Demo Walk
 - Snow Melt

- General Grading Notes:
1. All work shall be in accordance with the City Public Works Standard.
 2. Cut slopes shall be no steeper than 2 horizontal to 1 vertical.
 3. Fill slopes shall be no steeper than 2 horizontal to 1 vertical.
 4. Fills shall be compacted per the recommendations of the geotechnical engineer.
 5. Areas to receive fill shall be properly prepared and approved by the City Inspector and geotechnical Engineer prior to placing fill.
 6. Fills shall be benched into competent material as per specifications and geotechnical report.
 7. All trench backfill shall be tested and certified by the site geotechnical engineer per the grading code.
 8. A geotechnical engineer shall perform periodic inspections and submit a complete report and map upon completion of the rough grading.
 9. The final composition report and certification from the geotechnical engineer shall contain the type of field testing performed. Each test shall be identified with the method of obtaining the in-place density, whether sand cone or drive ring and shall be so noted for each test. Sufficient maximum density determinations shall be performed to verify the accuracy of the maximum density curves used by the field technician.
 10. Dust shall be controlled by watering.
 11. The location and protection of all utilities is the responsibility of the permittee.
 12. Approved protective measures and temporary drainage provisions must be used to protect adjoining properties during the grading project.
 13. All public roadways must be cleared daily of all dirt, mud and debris deposited on them as a result of the grading operation. Cleaning is to be done to the satisfaction of the city engineer.
 14. The site shall be cleared and grubbed of all vegetation and deleterious matter prior to grading.
 15. The contractor shall provide shoring in accordance with OSHA requirements for trench walls.
 16. Aggregate base shall be compacted per the geotechnical report prepared for the project.
 17. Elevations shown on this plan are finish grades. Rough grades are the subgrades of the improvements shown hereon.
 18. The recommendations in the following Geotechnical Engineering Report by Gordon Spiller Huber Geotechnical Consultants, Inc. are included in the requirements of grading and site preparation.
 19. Erosion Control: Protect all inlet boxes, catch basins, etc. with straw bolls during construction. Protect surrounding properties and streets from site runoff with sandbags and earth berms.



Tunnel Excavation Cross Section

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STAMP:

PROJECT NAME:
Snow College Library

150 College Avenue
Ephraim, Utah 84627

REVISIONS:

100% CD, September 15, 2008
100% CD Review, August 4, 2008
ISSUE DATE:

SEPTEMBER 15 2008, 100% CD

ARCHITECT'S PROJECT NUMBER:

B07-051

DFCM PROJECT NUMBER:

07258700

SHEET TITLE:

Excavation Plan

SHEET NUMBER:

C2.0



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PROJECT NAME:

Snow College Library

150 College Avenue
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REVISIONS:

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100% CD Review, August 4, 2008

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SEPTEMBER 15 2008, 100% CD

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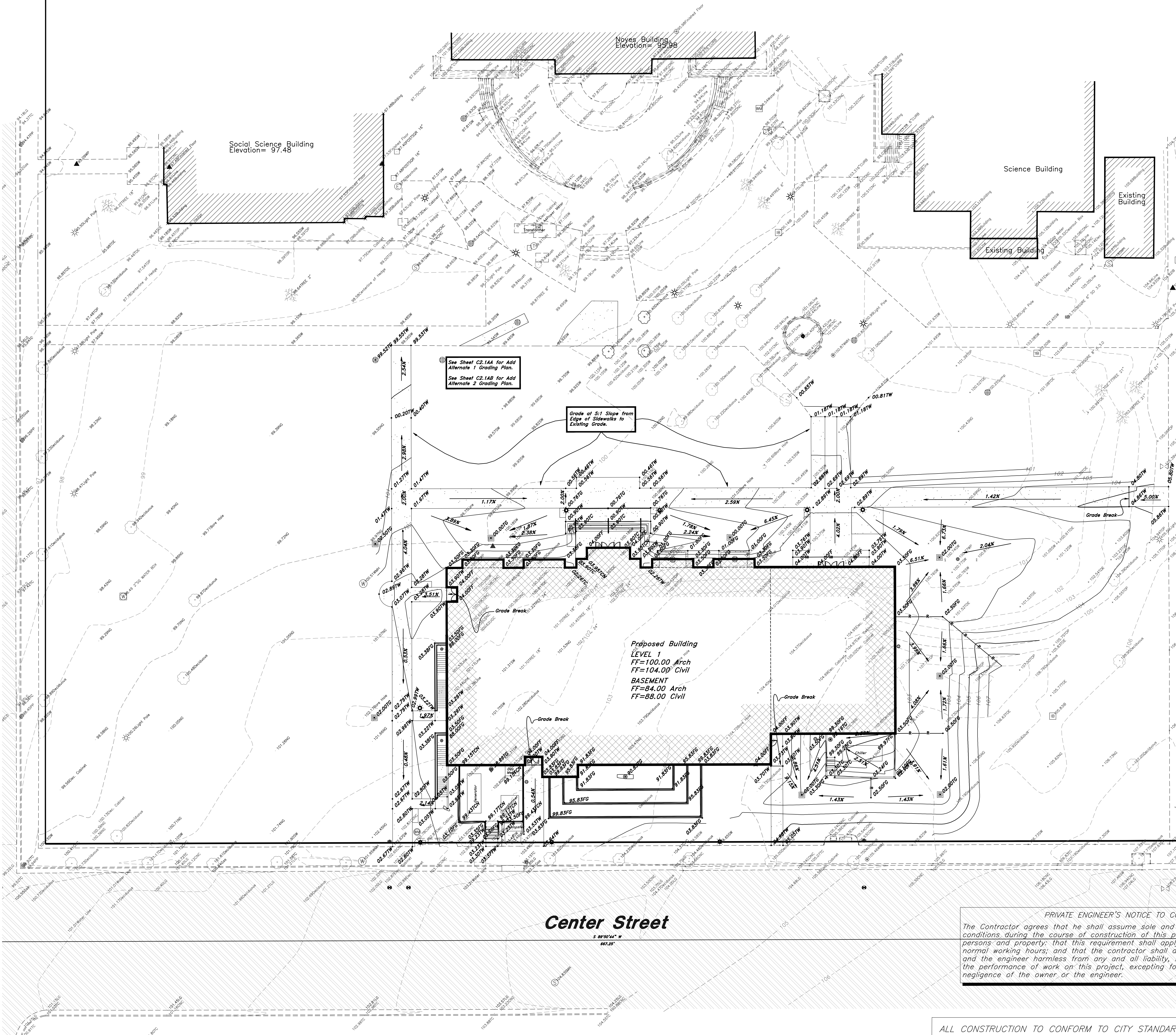
07258700

SHEET TITLE:

Grading Plan

SHEET NUMBER:

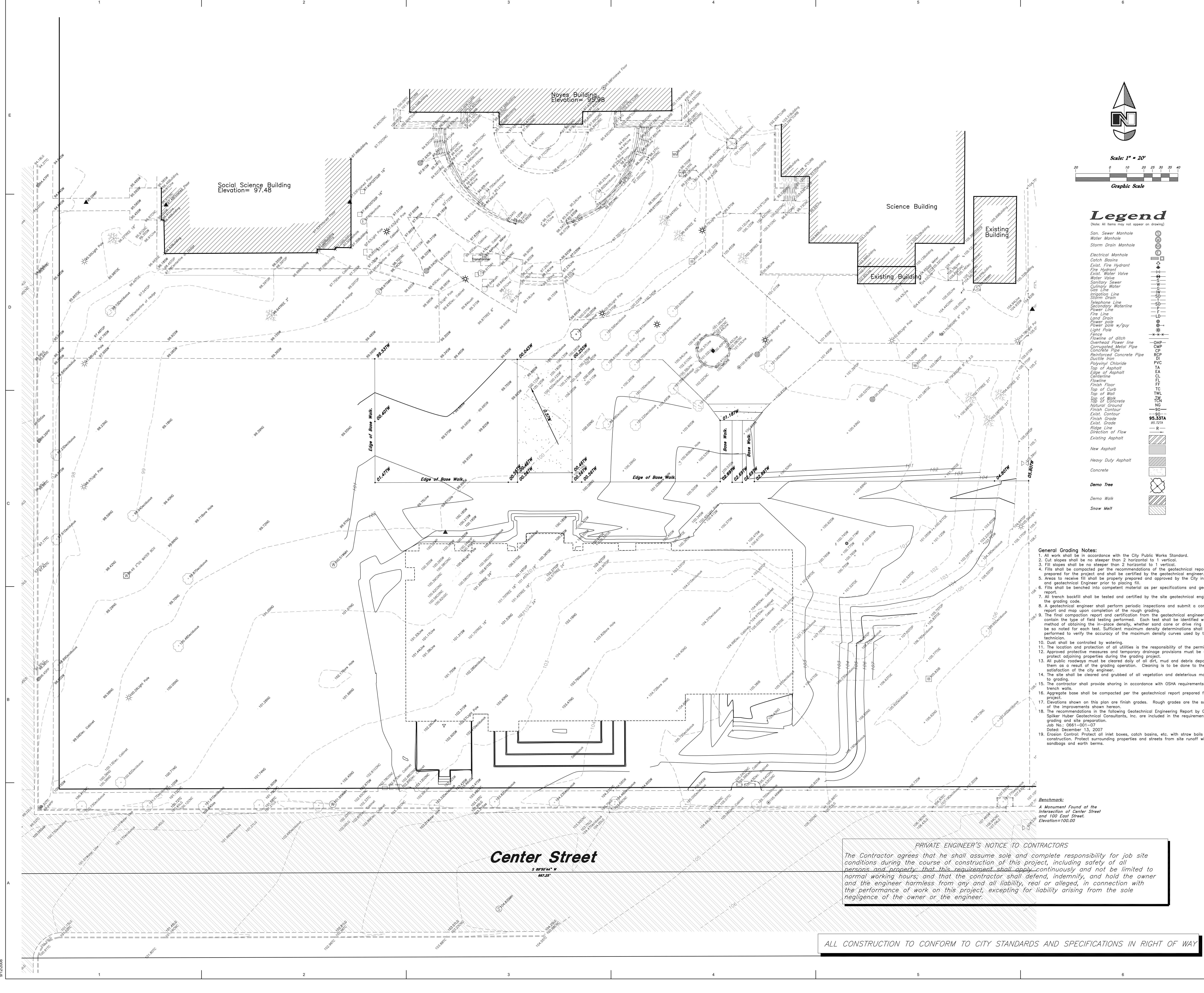
C2.1



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ALL CONSTRUCTION TO CONFORM TO CITY STANDARDS AND SPECIFICATIONS IN RIGHT OF WAY



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STAMP:

PROJECT NAME:
Snow College Library

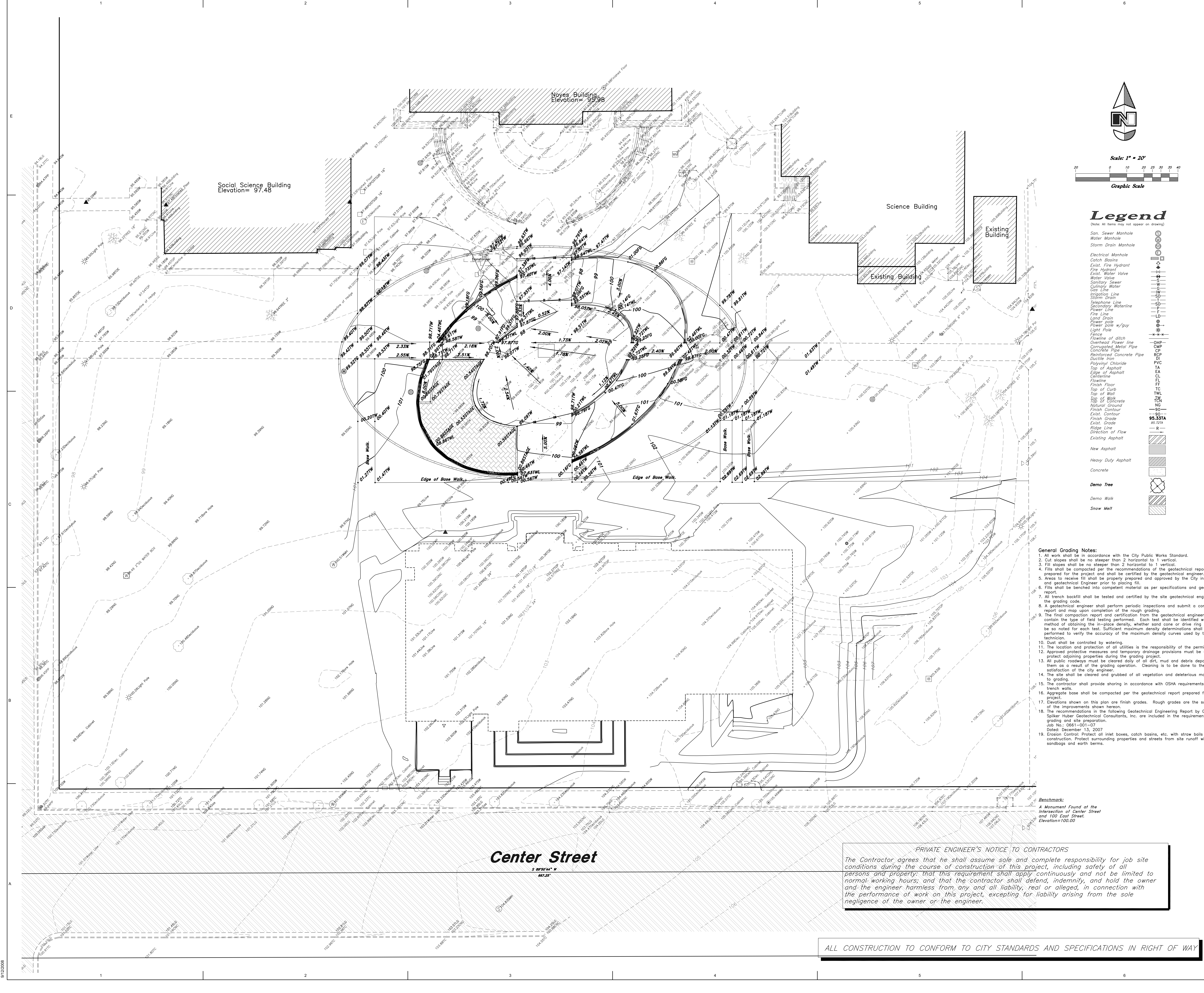
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ISSUE DATE:
SEPTEMBER 15 2008, 100% CD
ARCHITECT'S PROJECT NUMBER:
B07-051
DFCM PROJECT NUMBER:
07258700
SHEET TITLE:
**Grading Plan
Add Alternate A**
SHEET NUMBER:

C2.1-AA


9/12/2008



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andrea@maddinc.com

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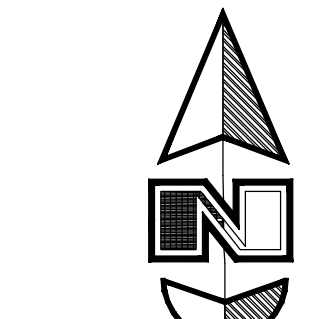
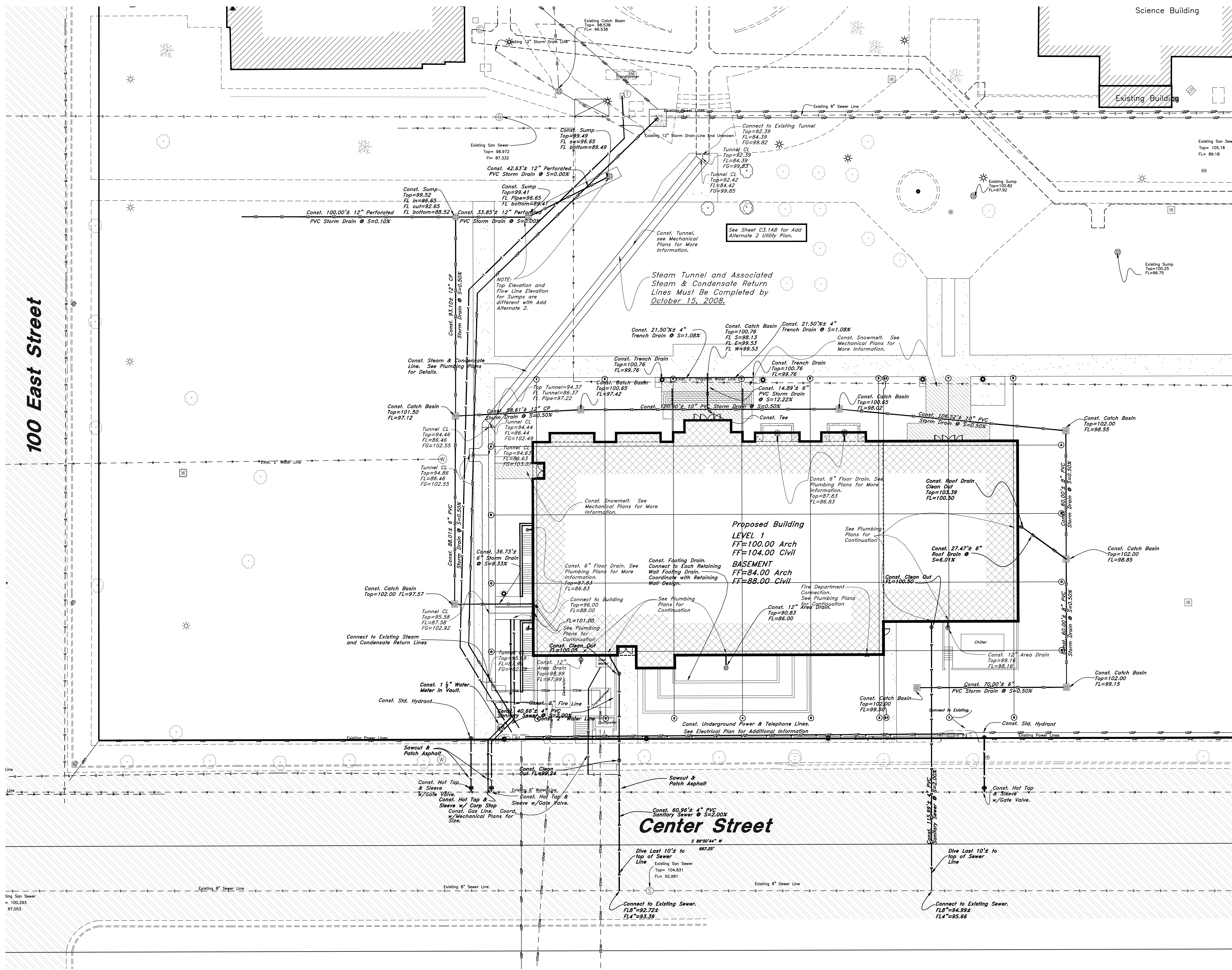
PROJECT NAME:
Snow College Library

150 College Avenue
Ephraim, Utah 84627

REVISIONS:

100% CD, September 15, 2008
100% CD Review, August 4, 2008
ISSUE DATE:
SEPTEMBER 15 2008, 100% CD
ARCHITECT'S PROJECT NUMBER:
B07-051
DFCM PROJECT NUMBER:
07258700
SHEET TITLE:
**Grading Plan
Add Alternate B**

SHEET NUMBER:
C2.1-AB



Scale: 1" = 20'

Graphic Scale

Legend

(Note: All items may not appear on drawing)

- San. Sewer Manhole
- Water Manhole
- Storm Drain Manhole
- Electrical Manhole
- Catch Basins
- Exist. Fire Hydrant
- Exist. Water Valve
- Sanitary Sewer
- Water Valve
- Gas Line
- Impoundment Line
- Storm Drain
- Telephone Line
- Secondary Waterline
- Power Line
- Fire Line
- Land Drain
- Power pole w/guy
- Light Pole
- Flowline of ditch
- Overhead Power line
- Corrugated Metal Pipe
- Concrete Pipe
- Reinforced Concrete Pipe
- Ductile Iron
- Asphalt Concrete
- Top of Asphalt
- Centerline
- Finish Floor
- Top of Curb
- Top of Wall
- Top of Work
- Natural Ground
- Exist. Contour
- Exist. Grade
- Ridge Line
- Direction of Flow
- Existing Asphalt
- Light poles
- New Asphalt
- Heavy Duty Asphalt
- Concrete
- Demo Tree
- Demo Walk
- Snow Melt

- General Utility Notes:**
1. Coordinate all utility connections to building with plumbing plans and building contractor.
 2. Verify depth and location of all existing utilities prior to constructing any new utility lines. Notify Civil Engineer of any discrepancies or conflicts prior to any connections being made.
 3. All catch basin and inlet box grates are to be bicycle proof.
 4. All inlet boxes located in curb and gutter are to be rectangular and cast in place to ensure proper placement. Pre-cast or square boxes will not be accepted.
 5. Refer to the site electrical plan for details and locations of electrical lines, transformers and light poles.
 6. Gas lines, telephone lines, and cable TV lines are not a part of these plans.
 7. Water meters are to be installed per city standards and specifications. It will be the contractor's responsibility to install all items required.
 8. Water lines, valves, fire hydrants, fittings etc. are to be constructed as shown. Contractor is responsible to construct any vertical adjustments necessary to clear sewer, storm drain or other utilities as necessary including valve boxes and hydrant apertures to proper grade.
 9. Field verify all existing and/or proposed Roof Drain/Roof Drain down spout connections to Storm Water System with Civil, Plumbing & Architectural plans. Notify Engineer of any discrepancies.

Utility Piping Materials:
All piping to be installed per manufacturers recommendations. Refer to project specifications for more detailed information regarding materials, installation, etc.

Culinary Service Laterals

1. 3/4" to 2" diameter pipe - copper tube ASTM B, Type K, Soft Temper
2. Over 2" diameter pipe - AWWA C-900 Class 150 pipe

Water Main Lines and Fire Lines

1. Pipe material as shown on utility plan view or to meet city standards.

Sanitary Sewer Lines

1. All sewer piping to be Polyvinyl Chloride (PVC) sewer pipe, ASTM D 3034, Type PSM, SDR 35

Storm Drain Lines

1. 10" pipes or smaller - Polyvinyl Chloride (PVC) sewer pipe, ASTM D3034, Type PSM, SDR 35
2. 12" pipes or larger - Reinforced Concrete Pipe, ASTM C76, Class III

CAUTION NOTICE TO CONTRACTOR

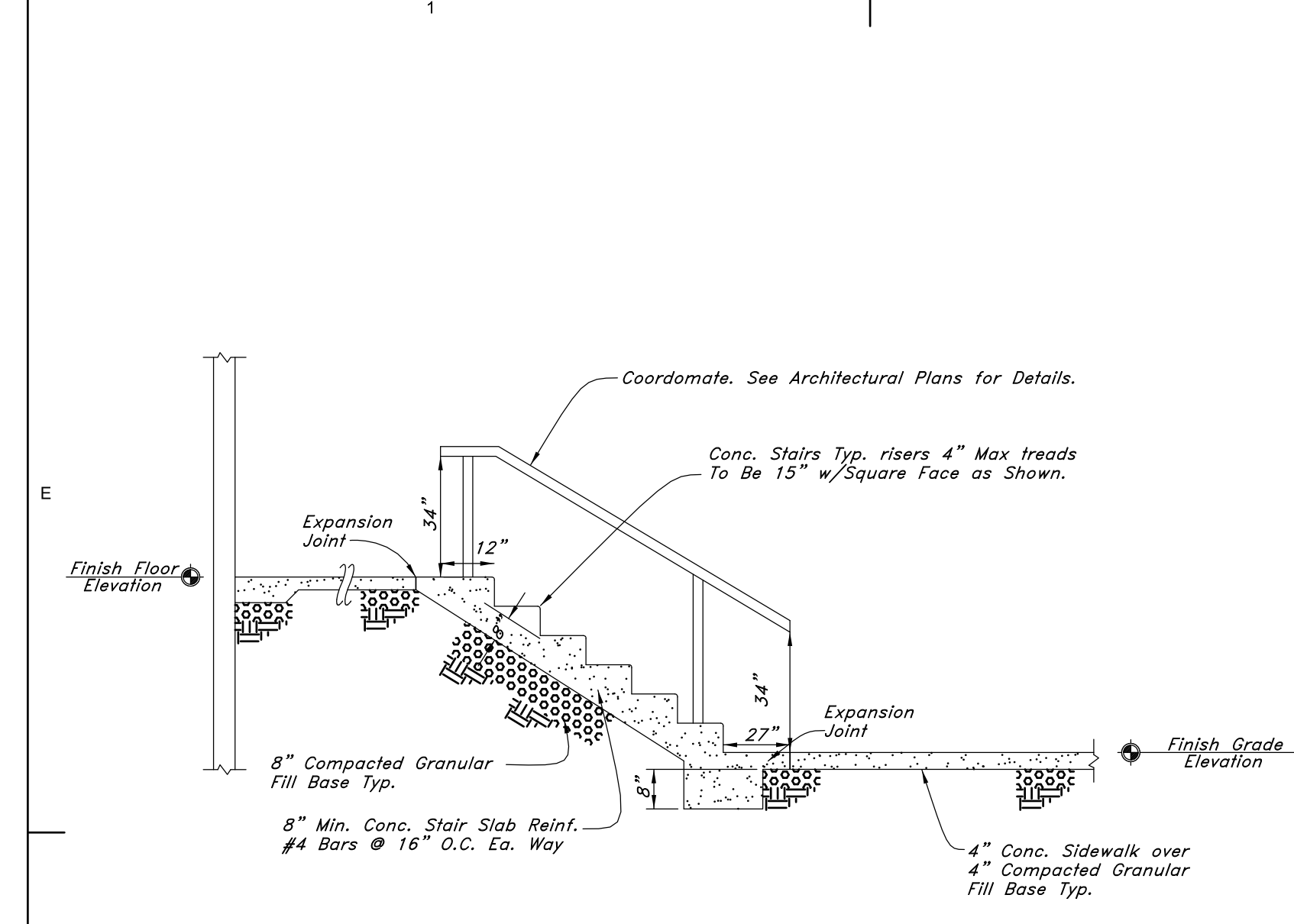
The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility company at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

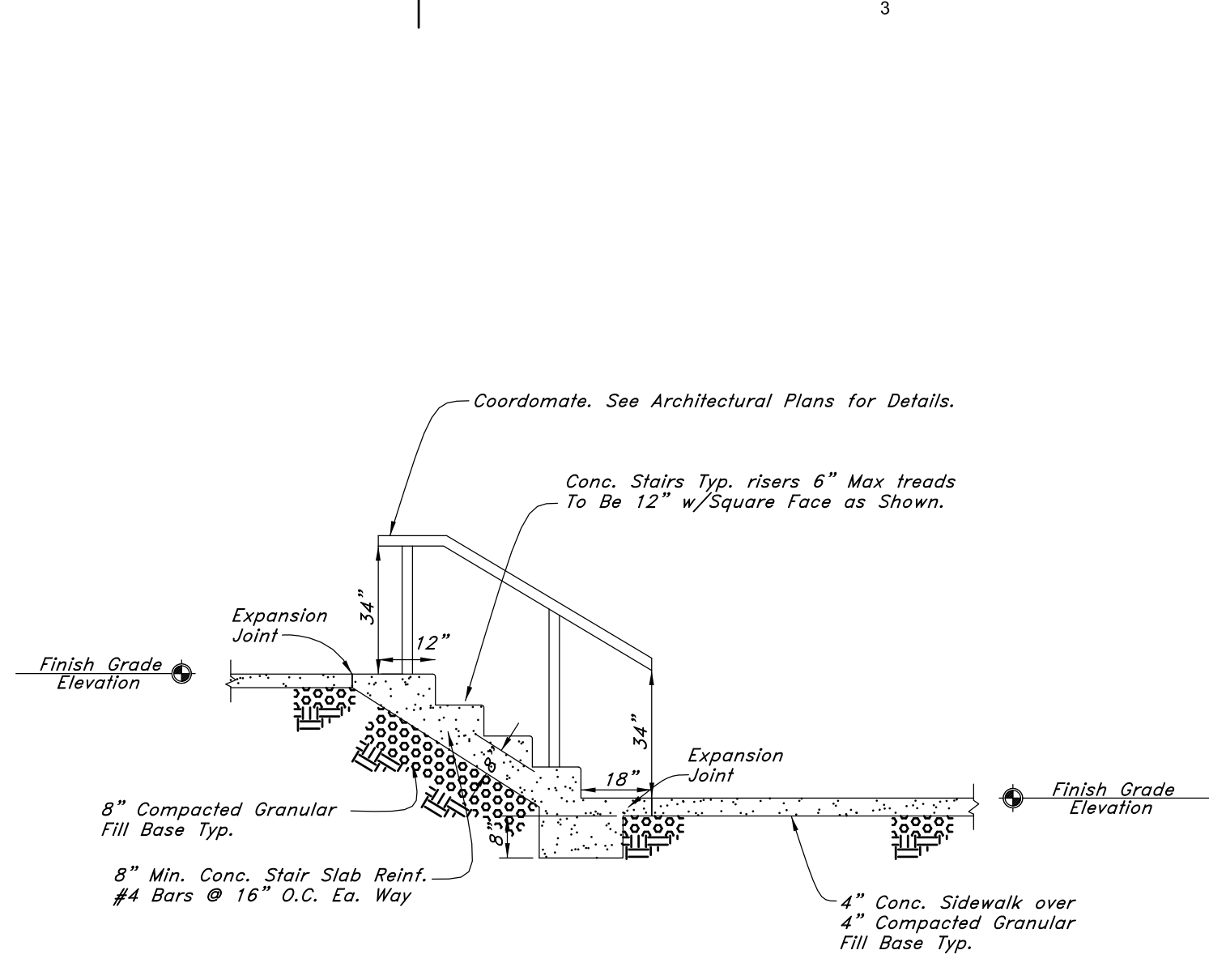
The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property. This requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify, and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

ALL CONSTRUCTION TO CONFORM TO CITY STANDARDS AND SPECIFICATIONS

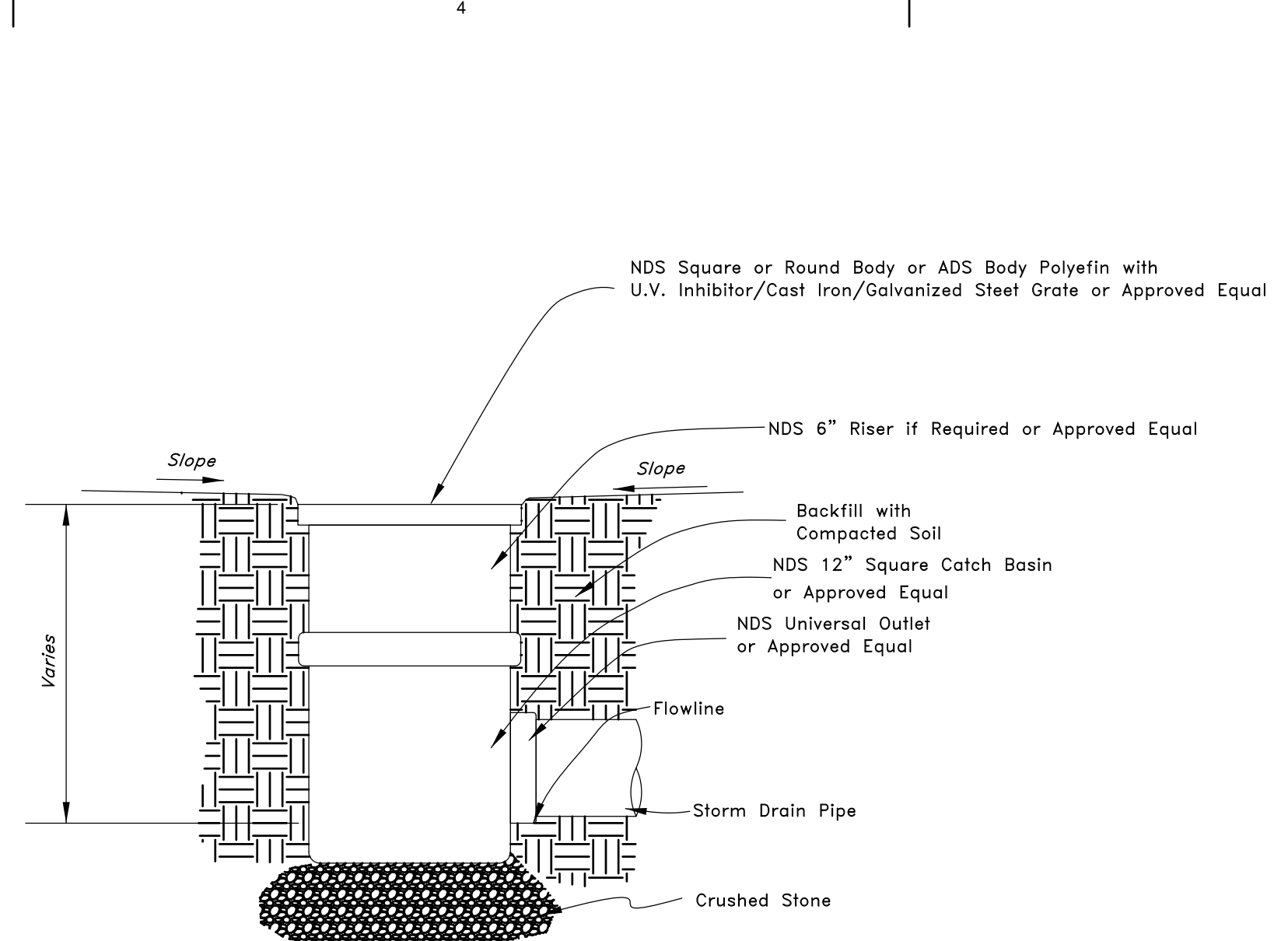
9/12/2008



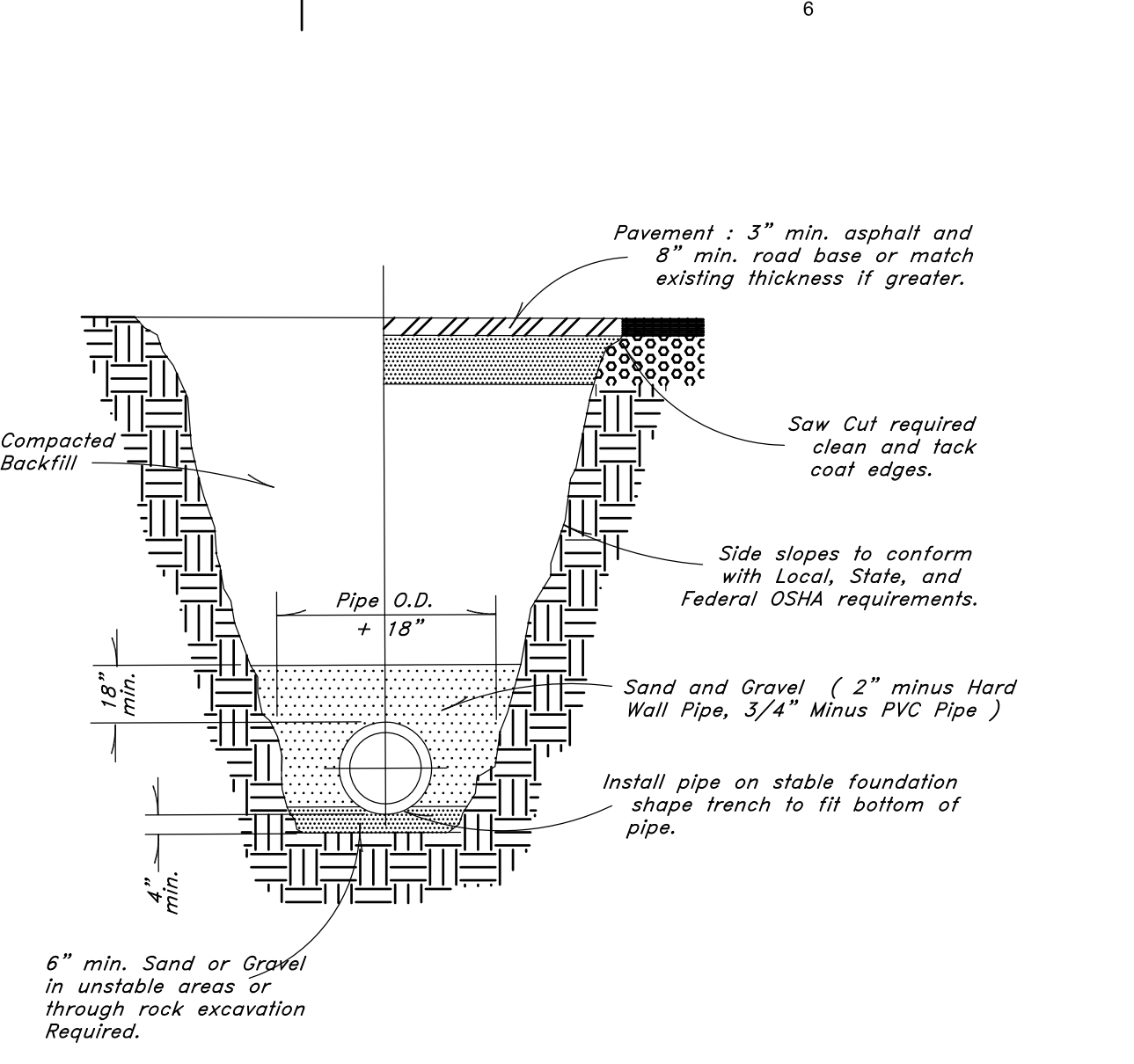
Main Entrance Concrete Stair Detail



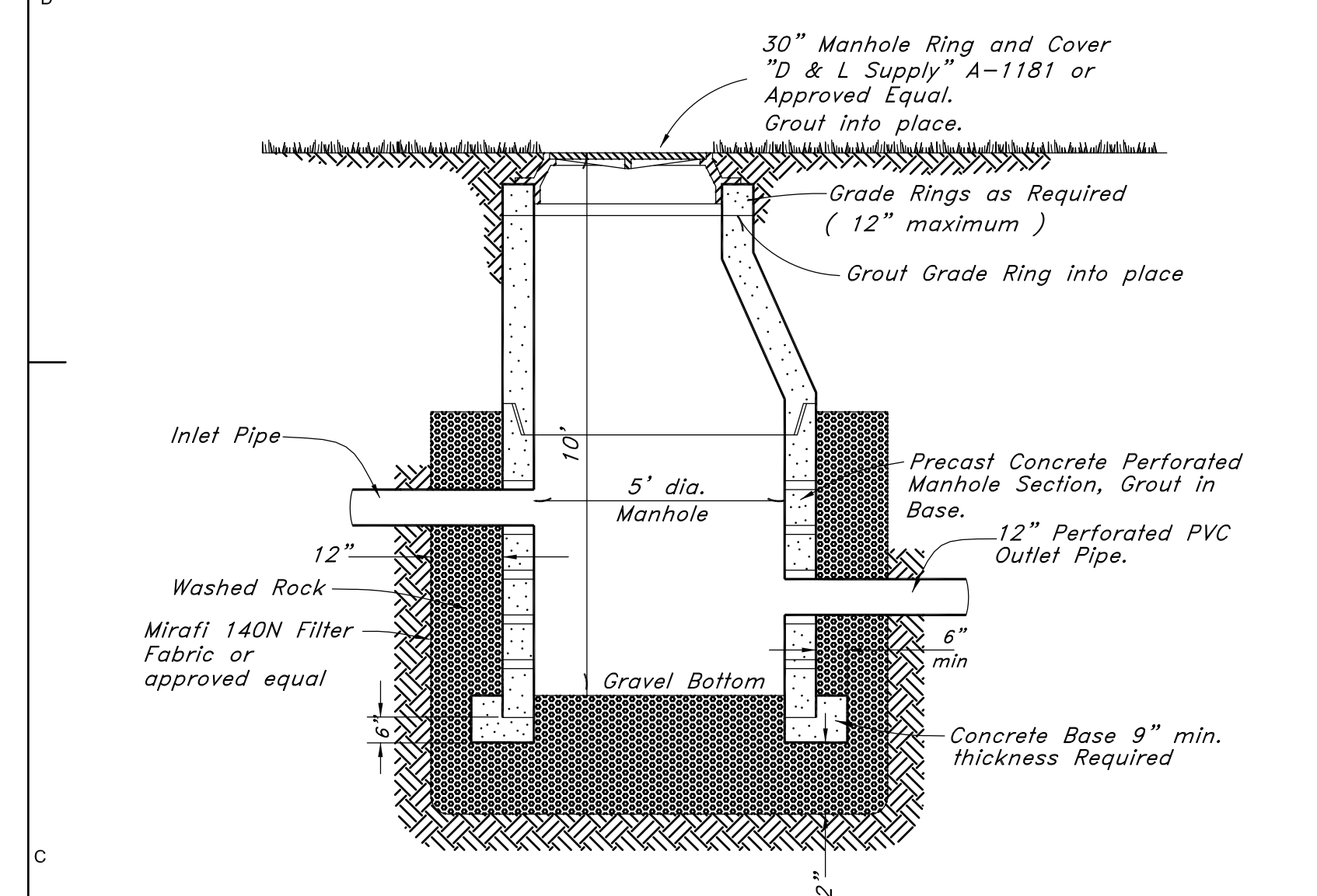
Add Alternate B Concrete Stair Detail



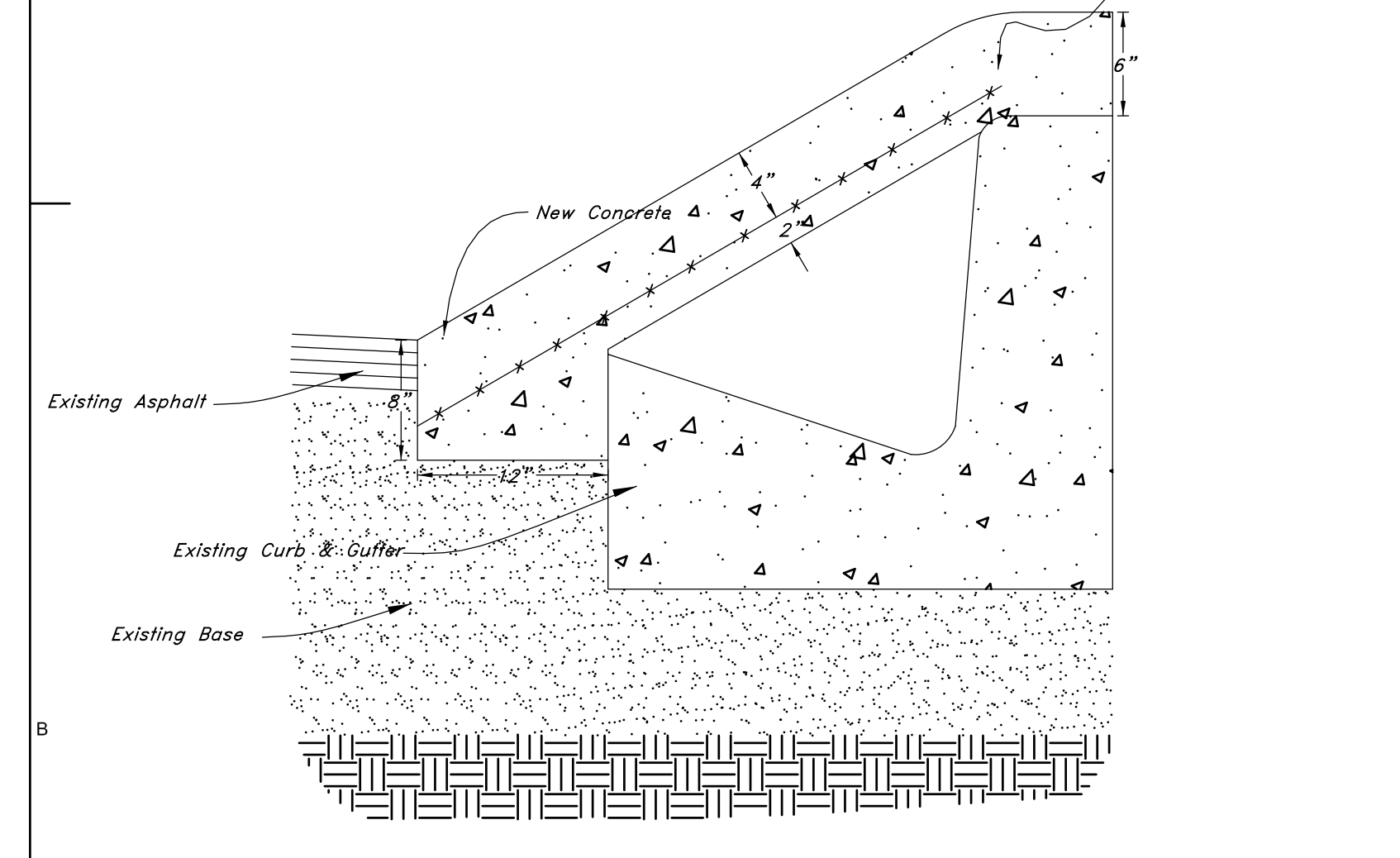
12 inch Area Drain



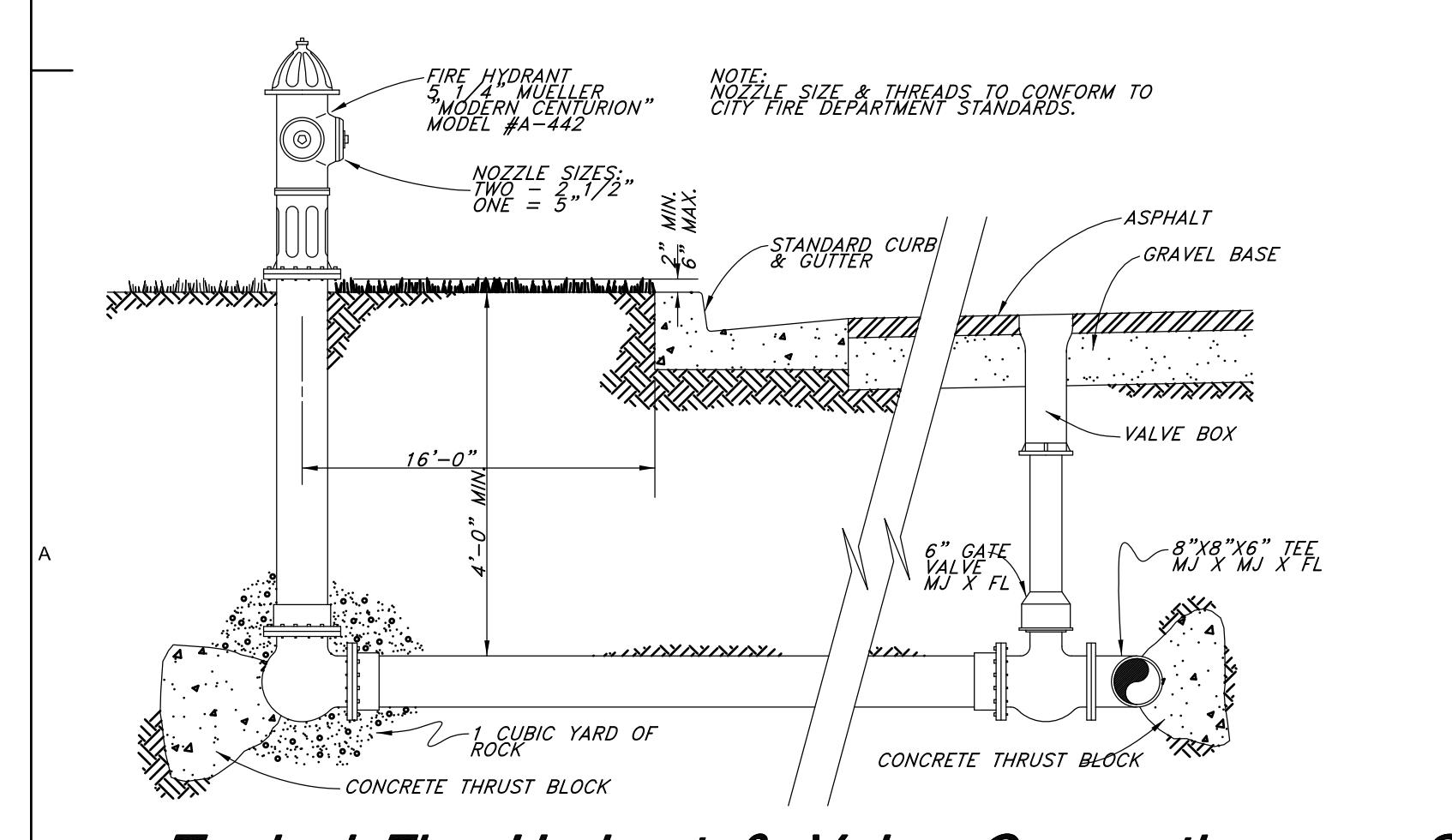
Typical Trench Detail



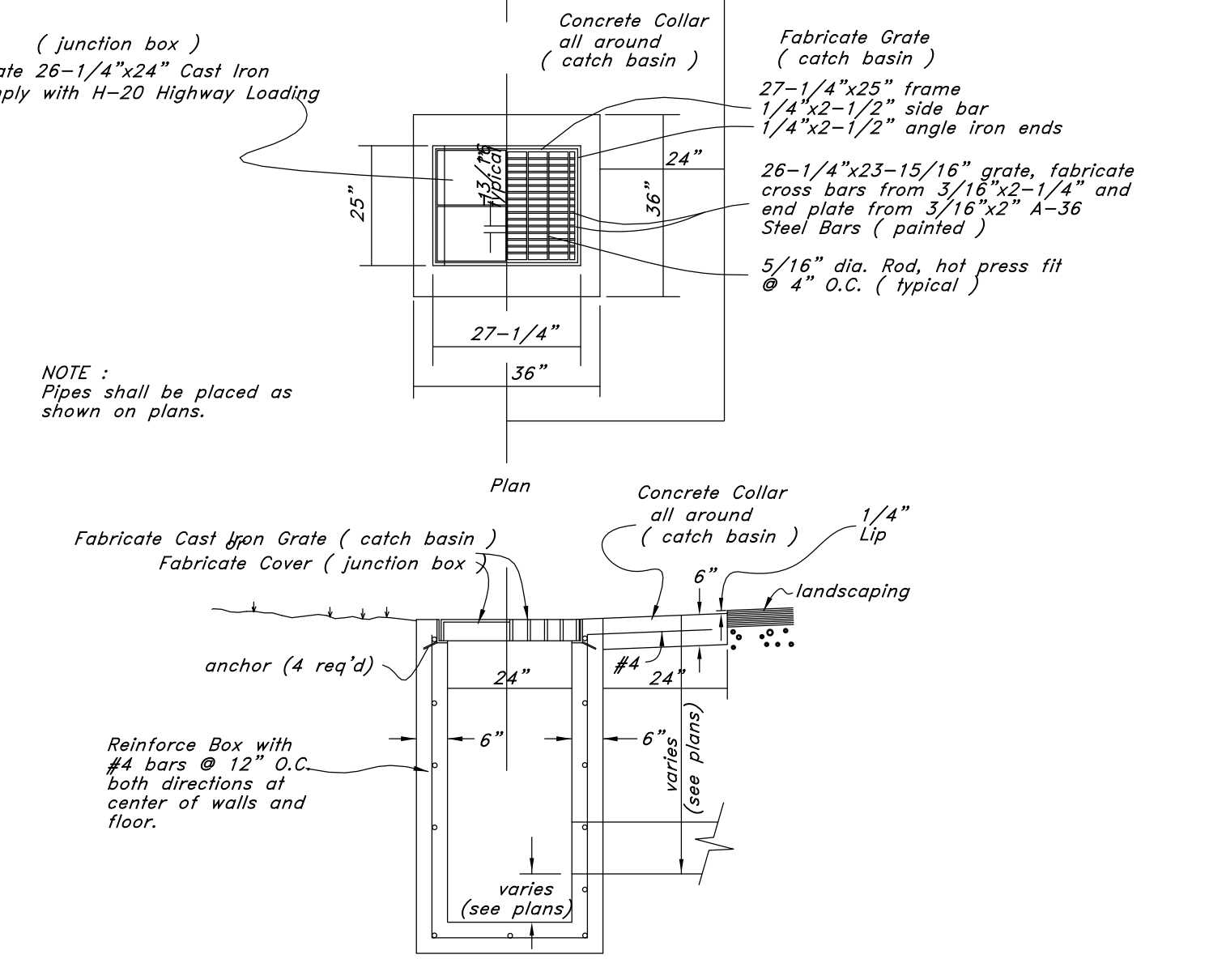
Typical Sump Detail



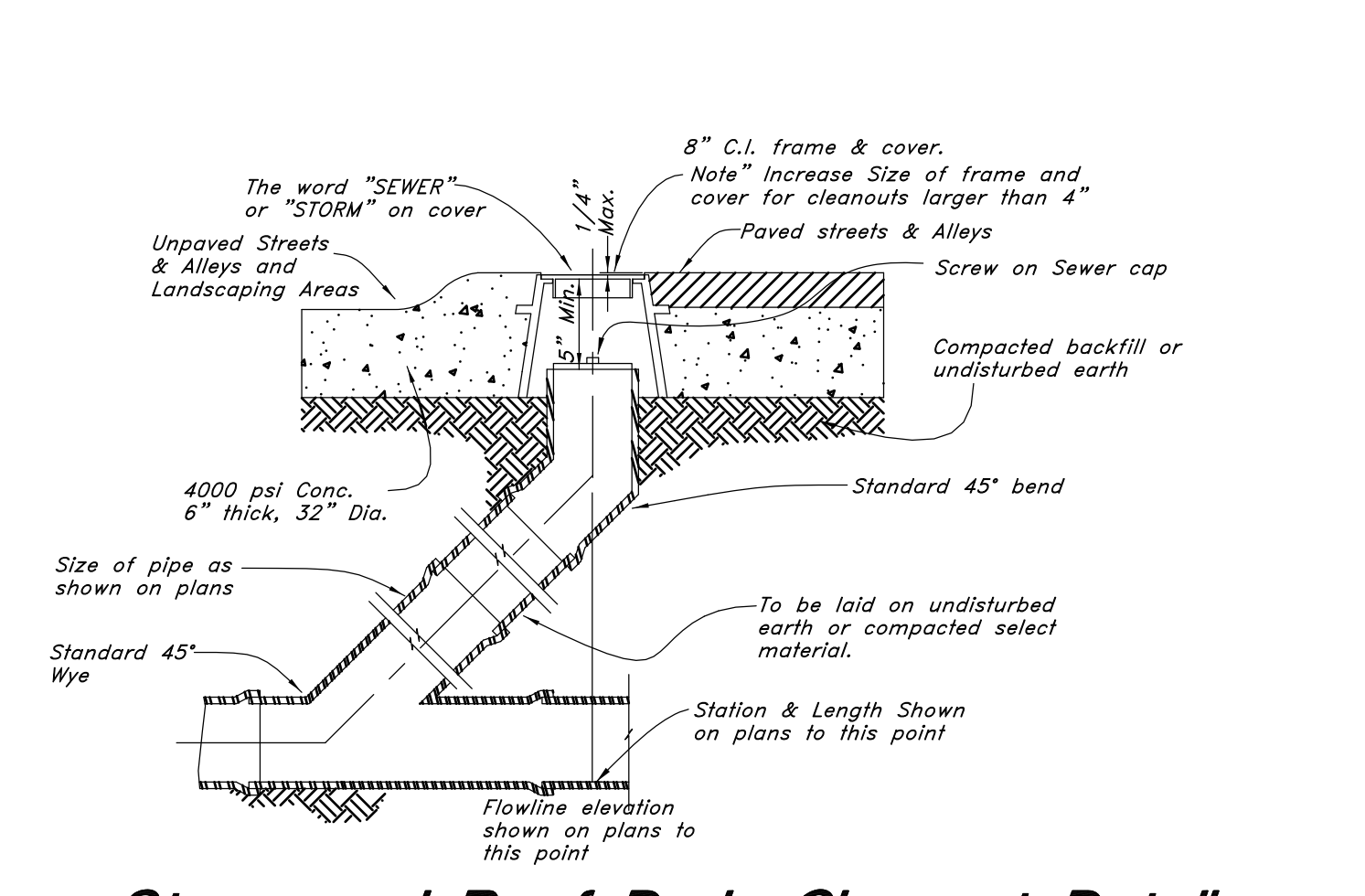
Bridge Over Existing Curb & Gutter



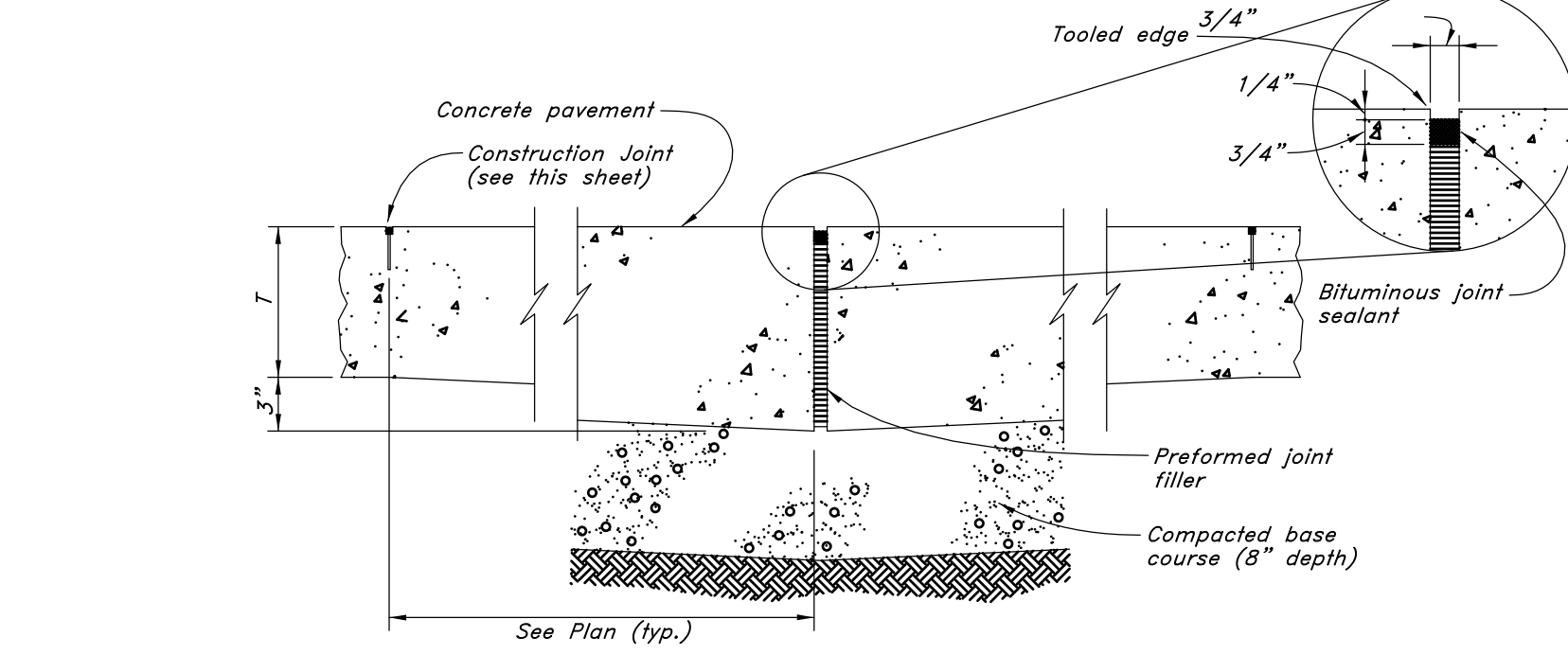
Typical Fire Hydrant & Valve Connection



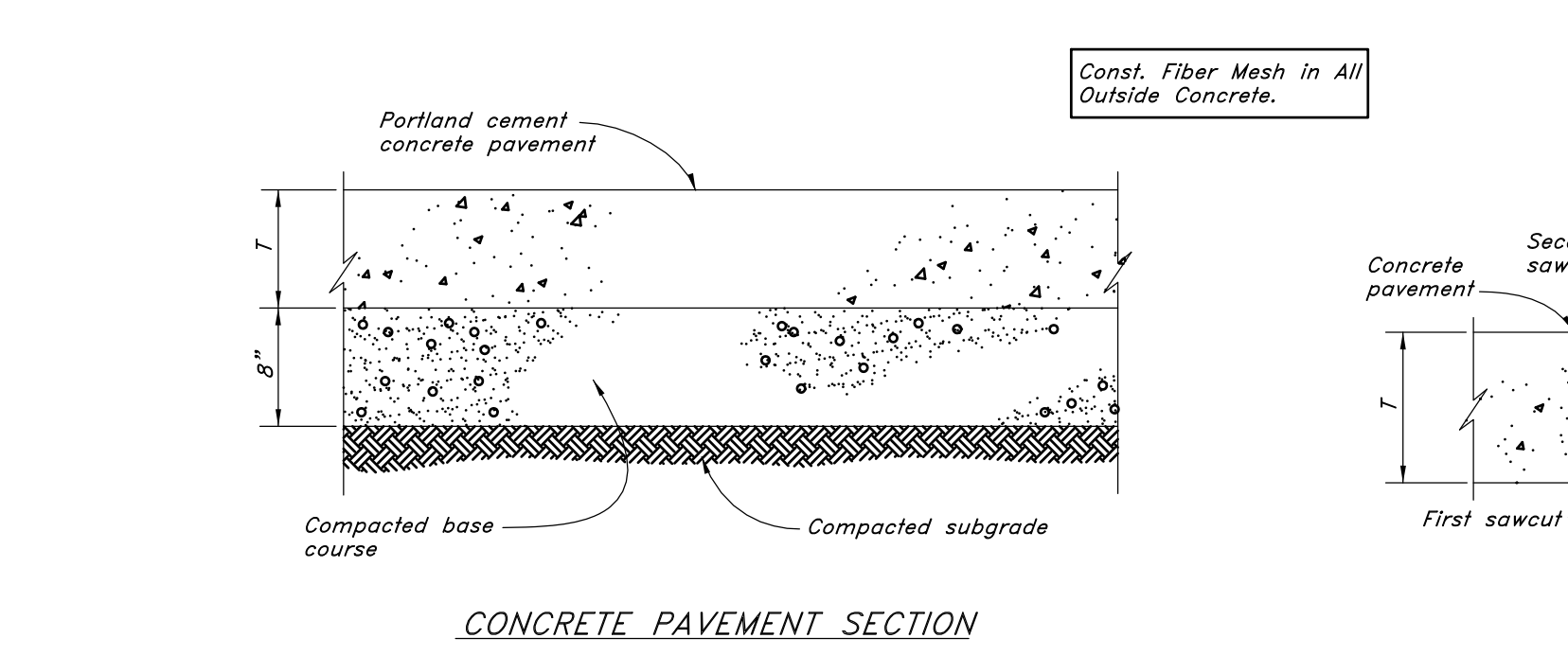
Typical Catch Basin



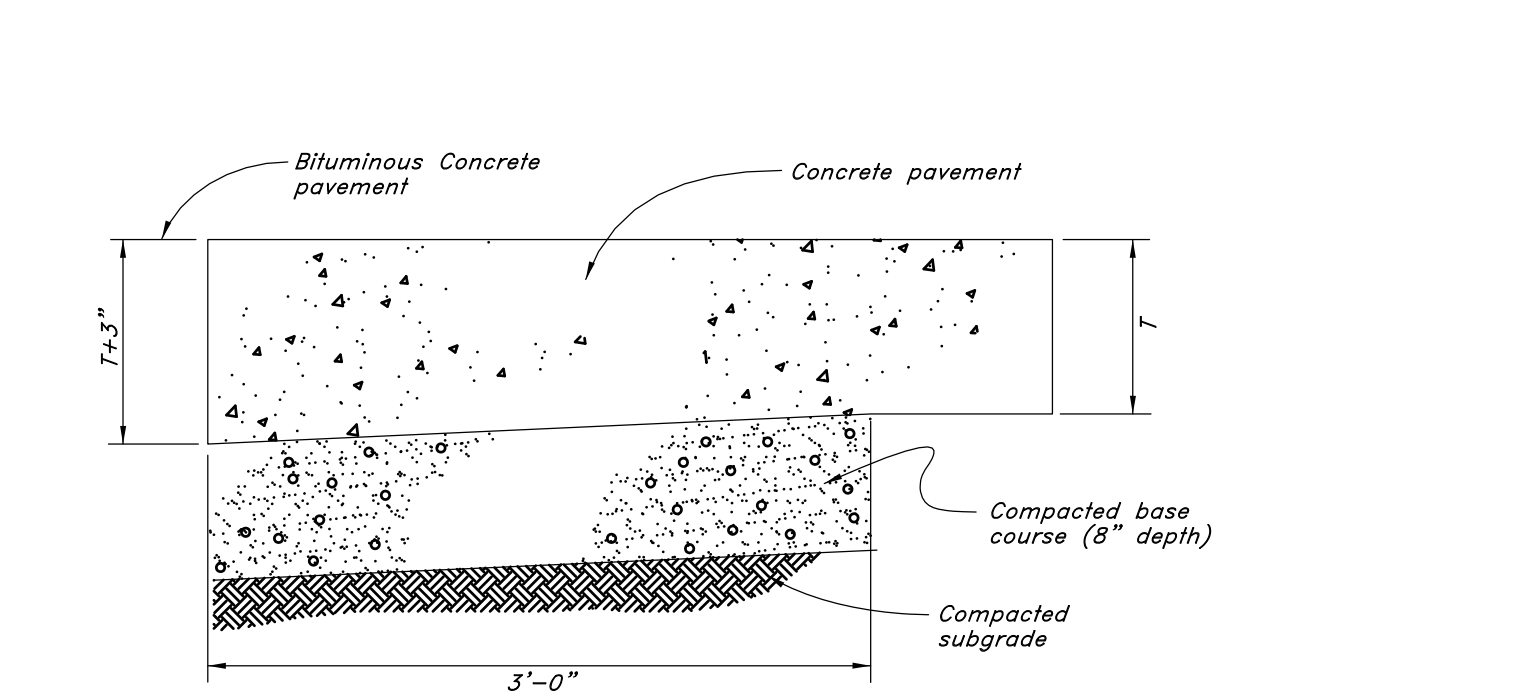
Sewer, Storm, and Roof Drain Cleanout Detail



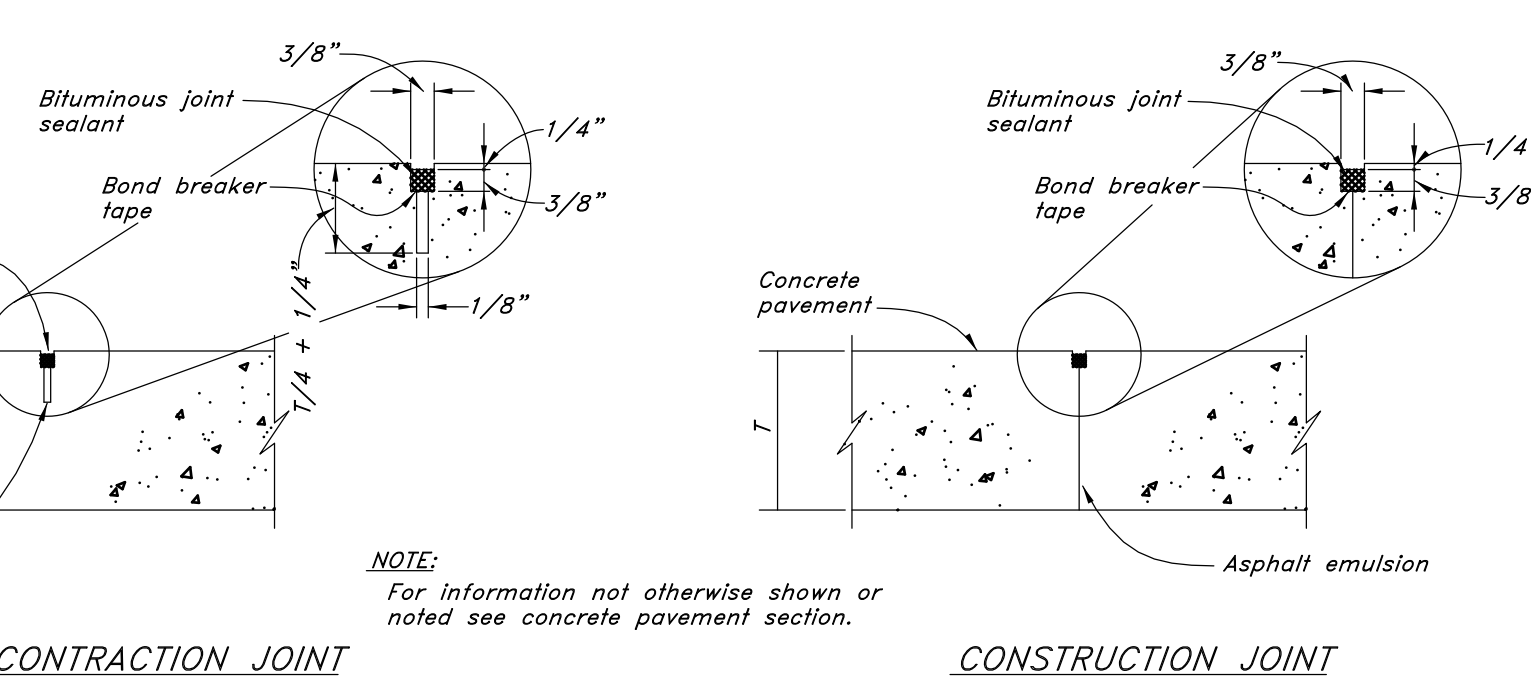
EXPANSION JOINT



CONCRETE PAVEMENT SECTION



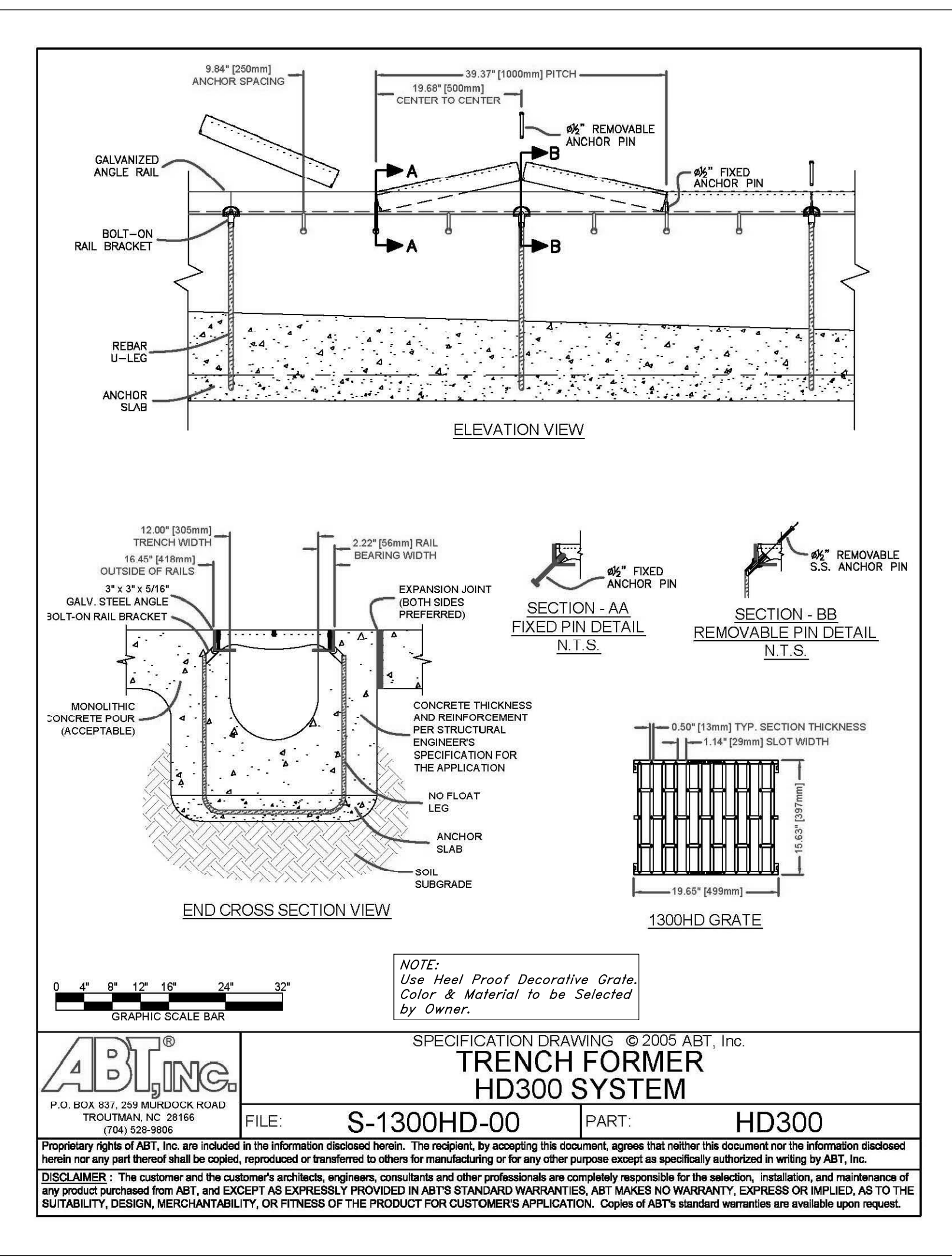
THICKENED EDGE



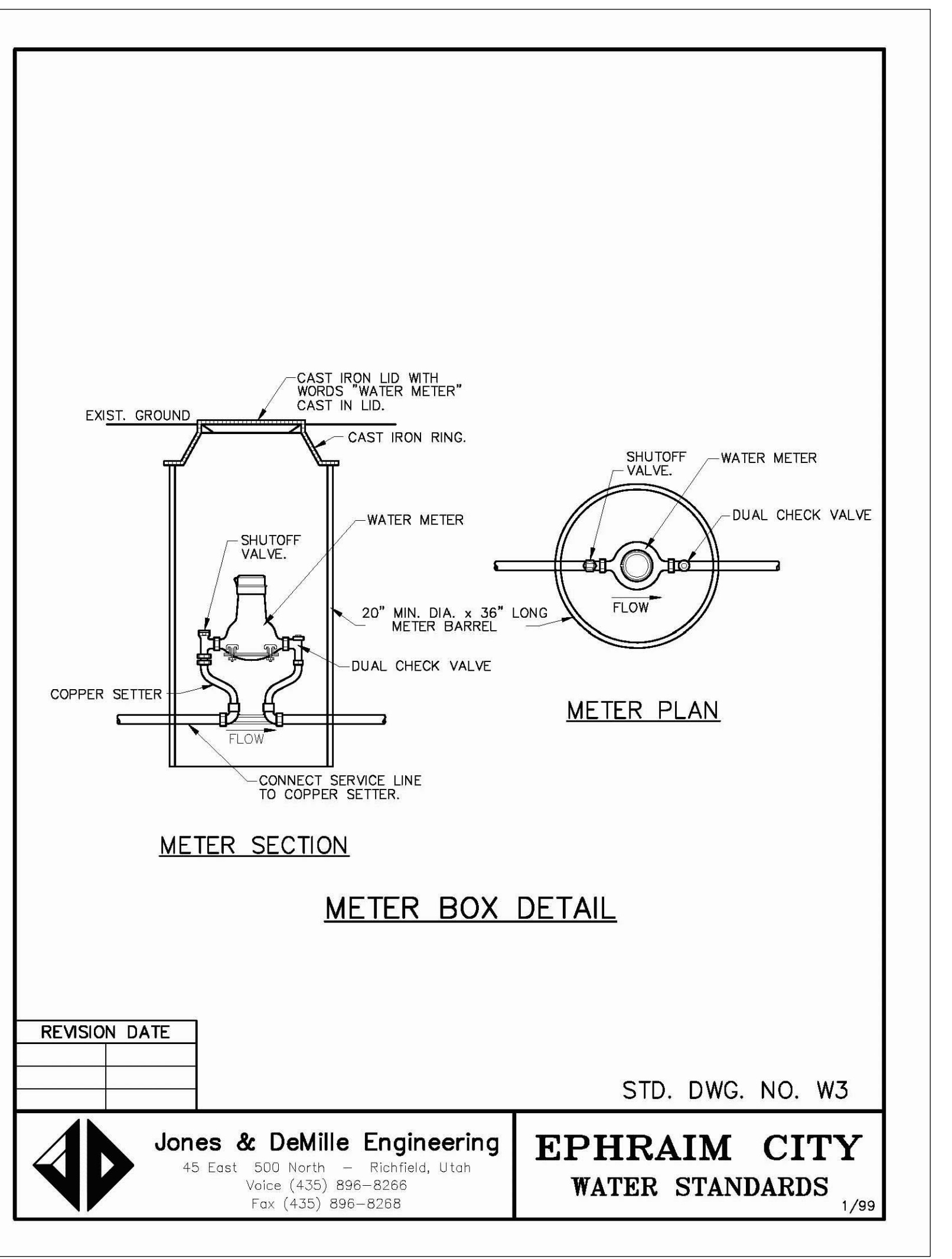
CONTRACTION JOINT

CONSTRUCTION JOINT

Portland Cement Concrete Pavement



Trench Drain



Water Meter Detail

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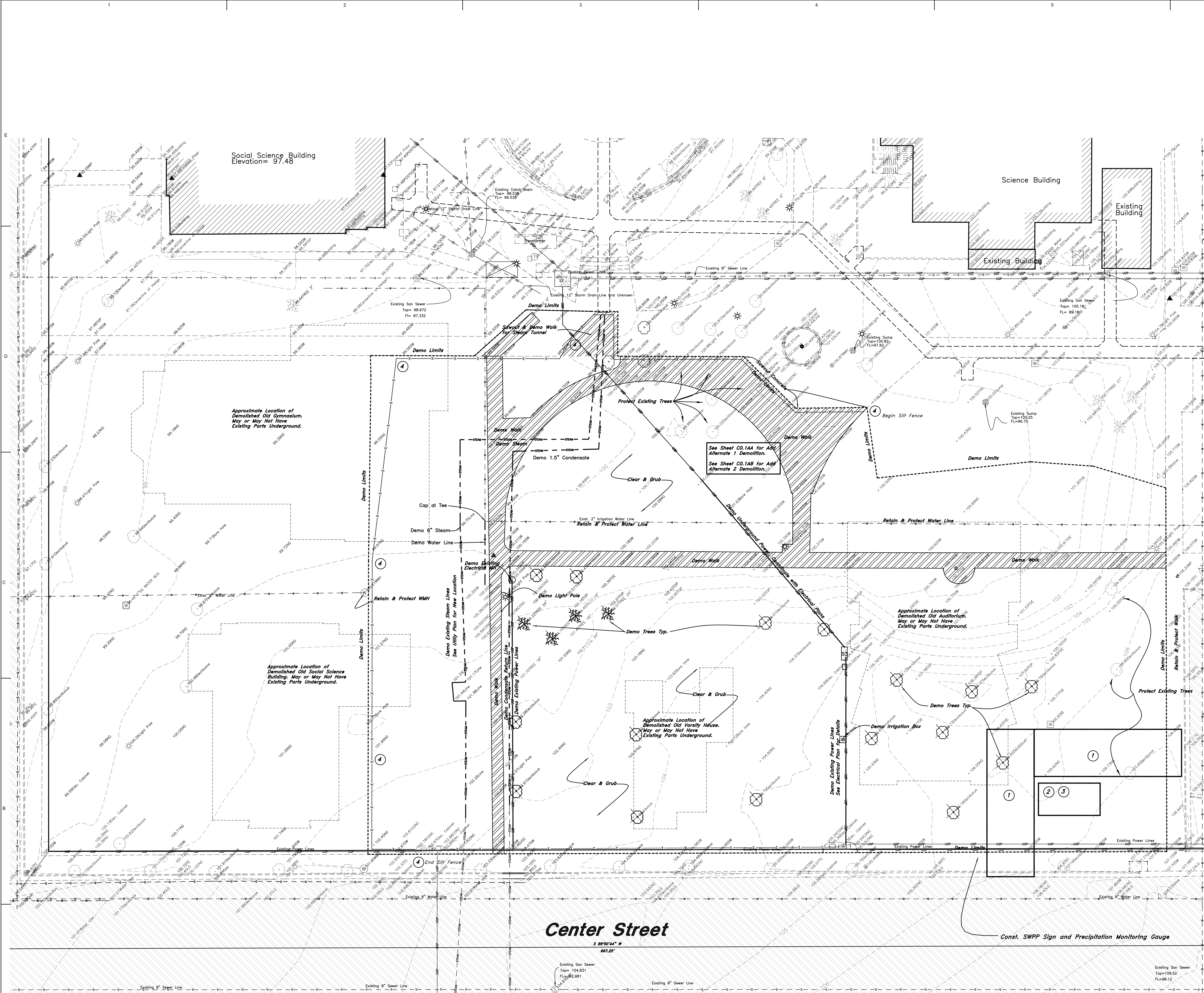
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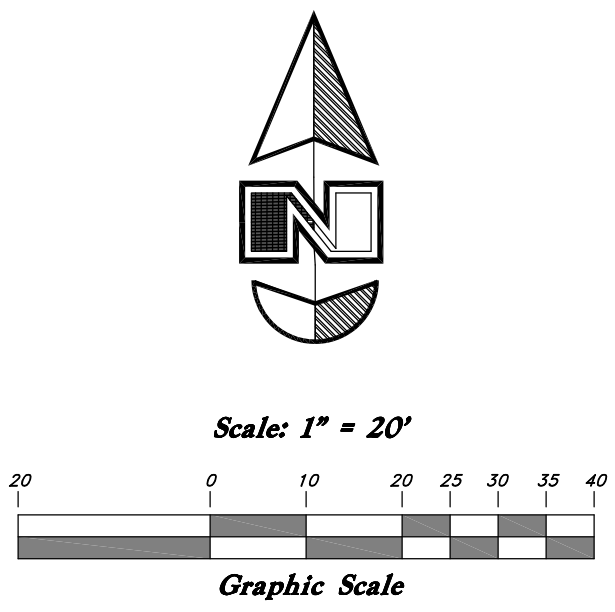
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ARCHITECT'S PROJECT NUMBER:
B07-051
DFCM PROJECT NUMBER:
07258700
SHEET TITLE:
Detail Sheet

SHEET NUMBER:
C4.1



- PHASE 1 CLEAR & GRUB
1. Construct BMP Stabilized Construction Entrance
 2. Construct BMP Vehicle and Equipment Cleaning & Truck Wash
 3. Construct BMP Vehicle and Equipment Fueling
 4. Construct BMP Silt Fence
 5. Utilize BMP Dust Controls
 6. Utilize BMP Portable Toilets
 7. Utilize BMP Temporary and Permanent Seeding
 8. Utilize BMP Construction Sequencing
 9. Utilize BMP Grading Practices
 10. Utilize BMP Materials Storage
 11. Utilize BMP Preservation of Existing Vegetation
 12. Utilize BMP Parking Lot Sweeping/Vacuuming
 13. Utilize BMP Spill Clean-up



Legend

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- Water Manhole
- Storm Drain Manhole
- Electrical Manhole
- Catch Basins
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- Fire Hydrant
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- Water Valve
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- Top of Wall
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- Top of Concrete
- Natural Ground
- Finish Contour
- Exist. Contour
- Finish Grade
- Exist. Grade
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- Direction of Flow
- Existing Asphalt
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STAMP:

PROJECT NAME:
Snow College Library

**150 College Avenue
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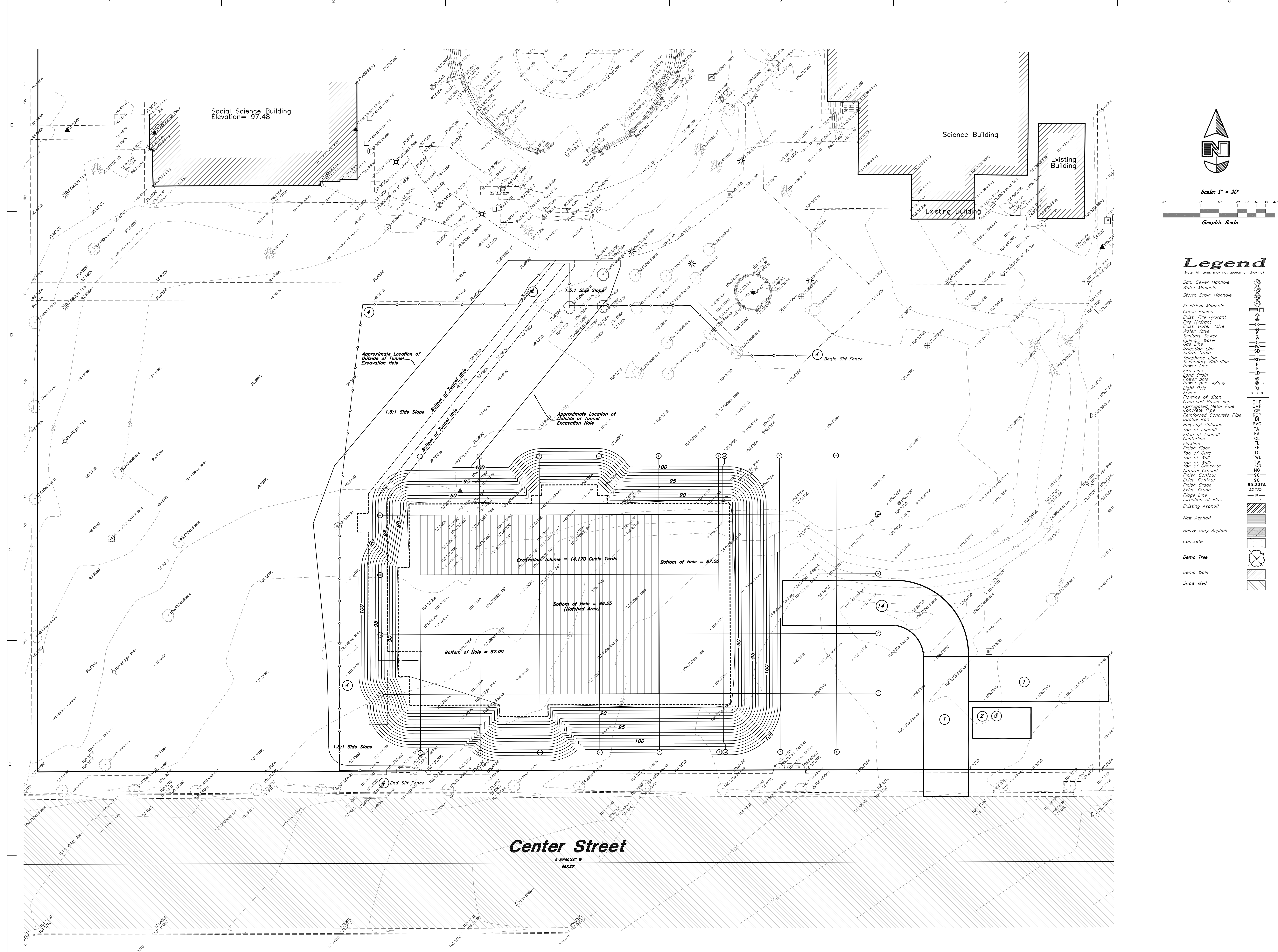
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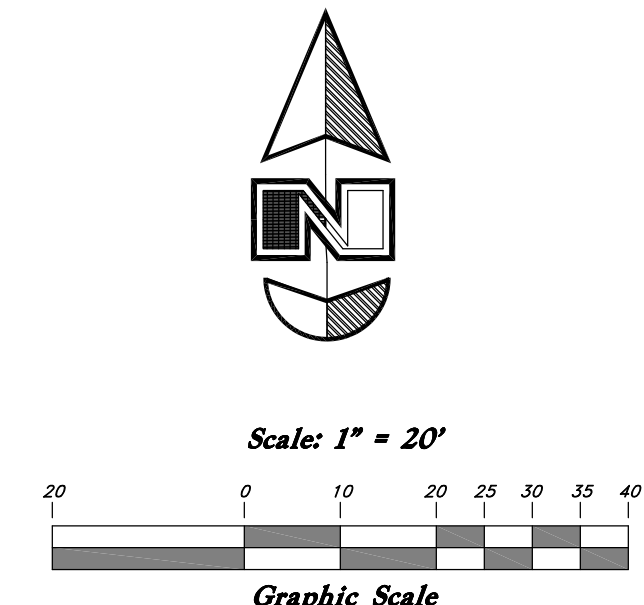
**Storm Water Pollution
Prevention Plan
Demolition Phase**

SHEET NUMBER:

C5.1



- PHASE 2 EXCAVATION
REFER TO ARCHITECT'S AND STRUCTURAL PLANS FOR FOOTINGS
AND FOUNDATION AND EXCAVATION REQUIREMENTS.
REFER TO GRADING AND DRAINAGE AND UTILITY PLANS FOR
DETENTION POND EXCAVATION
1. Construct BMP Stabilized Construction Entrance
 2. Construct BMP Vehicle and Equipment Cleaning & Truck Wash
 3. Construct BMP Vehicle and Equipment Fueling
 4. Construct BMP Silt Fence
 5. Utilize BMP Dust Controls
 6. Utilize BMP Portable Toilets
 7. Utilize BMP Temporary and Permanent Seeding
 8. Utilize BMP Construction Sequencing
 9. Utilize BMP Grading Practices
 10. Utilize BMP Materials Storage
 11. Utilize BMP Preservation of Existing Vegetation
 12. Utilize BMP Parking Lot Sweeping/Vacuuming
 13. Utilize BMP Spill Clean-up
 14. Construct BMP Construction Road Stabilization



Legend

- (Note: All items may not appear on drawing)
- San. Sewer Manhole
 - Water Manhole
 - Storm Drain Manhole
 - Electrical Manhole
 - Catch Basins
 - Exist. Fire Hydrant
 - Exist. Water Valve
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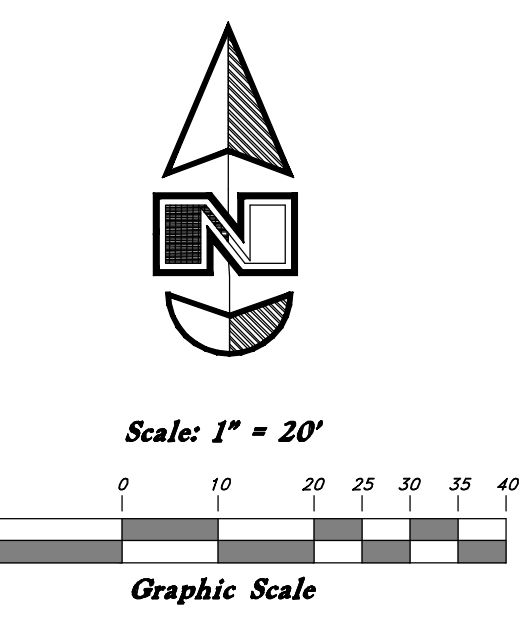
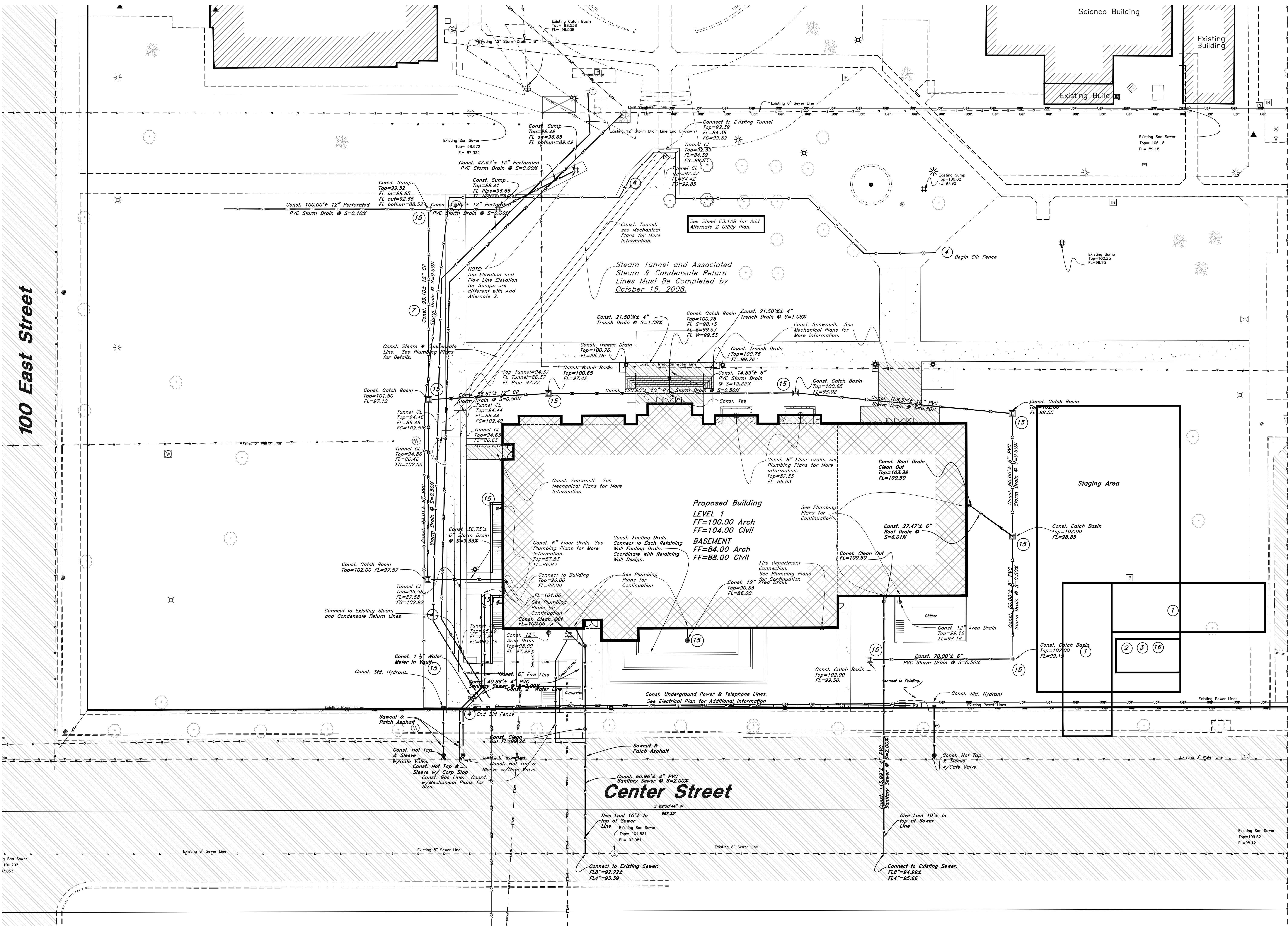
07258700

SHEET TITLE:

**Storm Water Pollution
Prevention Plan
Excavation Phase**

SHEET NUMBER:

C5.2



Legend

(Note: All items may not appear on drawing)

- San. Sewer Manhole
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- Heavy Duty Asphalt
- Concrete
- Demo Tree
- Demo Walk
- Snow Melt

100 East Street

Center Street

- PHASE 3 UTILITY CONSTRUCTION
MODIFY HAUL ROAD AS NEEDED
- Construct BMP Stabilized Construction Entrance
 - Construct BMP Vehicle and Equipment Cleaning & Truck Wash
 - Construct BMP Vehicle and Equipment Fueling
 - Construct BMP Silt Fence
 - Utilize BMP Dust Controls
 - Utilize BMP Portable Toilets
 - Utilize BMP Temporary and Permanent Seeding
 - Utilize BMP Construction Sequencing
 - Utilize BMP Grading Practices
 - Utilize BMP Materials Storage
 - Utilize BMP Preservation of Existing Vegetation
 - Utilize BMP Parking Lot Sweeping/Vacuuming
 - Utilize BMP Spill Clean-up
 - Construct BMP Construction Road Stabilization
 - Construct BMP Inlet Protection, Concrete Block, Gravel, Excavated Sand Bag Barrier, or Silt Fence
 - Construct BMP Concrete Waste Management
 - Construct BMP Sediment Trap

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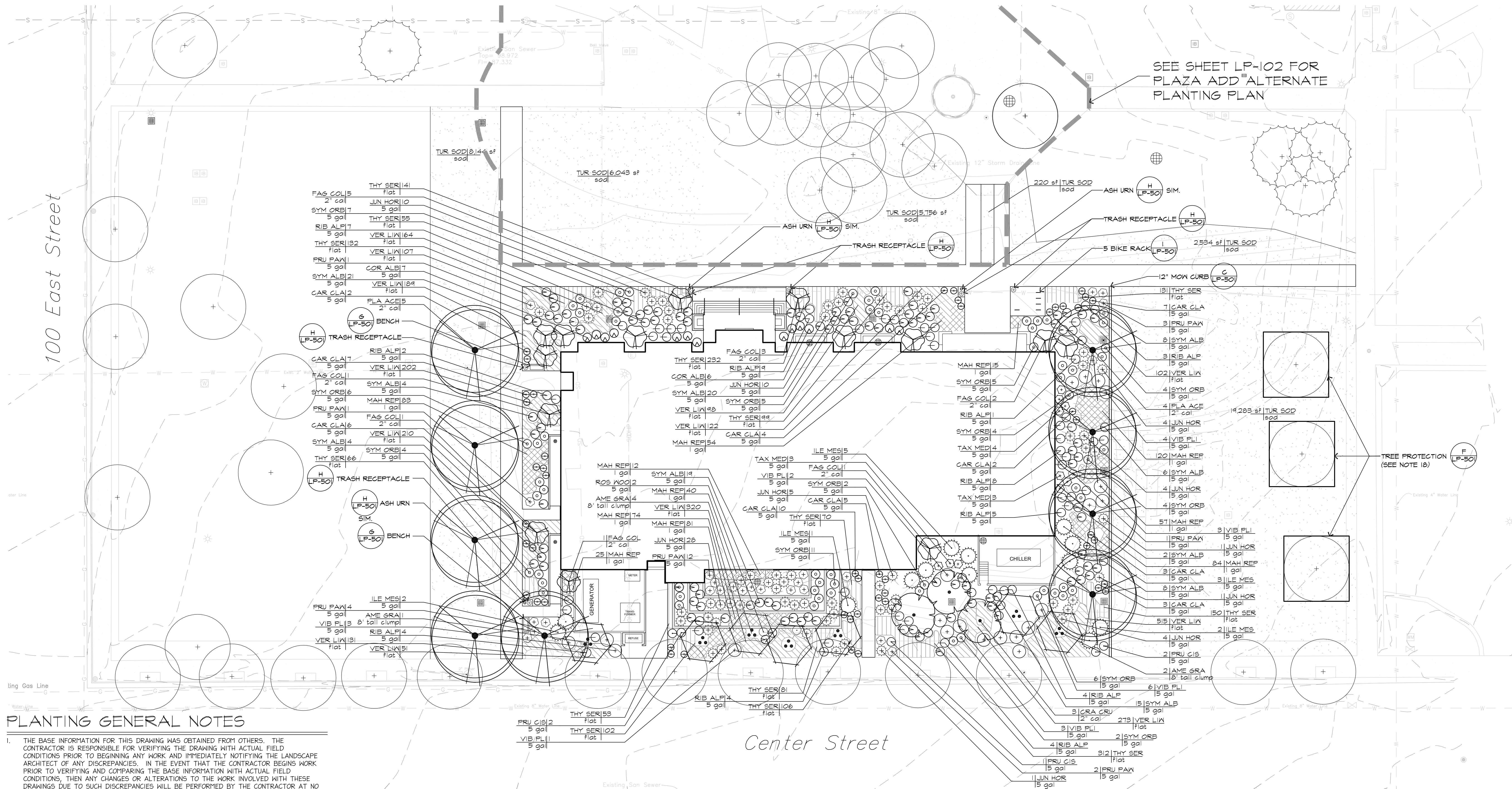
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ARCHITECT'S PROJECT NUMBER:
B07-051

DFCM PROJECT NUMBER:
07258700

SHEET TITLE:
Storm Water Pollution Prevention Plan
Utility Construction Phase

SHEET NUMBER:
C5.3



PLANTING GENERAL NOTES

- THE BASE INFORMATION FOR THIS DRAWING WAS OBTAINED FROM OTHERS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DRAWING WITH ACTUAL FIELD CONDITIONS PRIOR TO BEGINNING ANY WORK AND IMMEDIATELY NOTIFYING THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. IN THE EVENT THAT THE CONTRACTOR BEGINS WORK PRIOR TO VERIFYING AND COMPARING THE BASE INFORMATION WITH ACTUAL FIELD CONDITIONS, THEN ANY CHANGES OR ALTERATIONS TO THE WORK INVOLVED WITH THESE DRAWINGS DUE TO SUCH DISCREPANCIES WILL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND MARKING THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF WORK PRIOR TO DIGGING PLANTING PITS. CALL BLUE STAKES OF UTAH AT 811 OR 1-800-662-4111. IN THE EVENT THE CONTRACTOR BEGINS DIGGING PLANTING PITS PRIOR TO VERIFYING AND STAKING ALL UTILITIES, AND DAMAGE TO UTILITIES OCCURS, THE DAMAGED UTILITIES WILL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- REFER TO LEGENDS, NOTES, DETAILS, AND SPECIFICATIONS FOR FURTHER INFORMATION.
- ANY ALTERATIONS TO THESE ACTUAL PLANTING PLANS DURING CONSTRUCTION SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT AND RECORDED ON "AS BUILT" DRAWINGS PER THE SPECIFICATIONS.
- ALL PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY ASSOCIATION, INC..
- ALL PLANTS TO BE BALLED AND BURLAPPED OR CONTAINER GROWN, UNLESS OTHERWISE NOTED ON THE PLANT LIST.
- THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING DESIGN AS SHOWN AND IMPLIED ON THE DRAWINGS REGARDLESS OF QUANTITIES SHOWN ON PLAN.
- ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE ONLY AS APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- ALL PLANTS SHALL BE TAGGED AND APPROVED BY THE LANDSCAPE ARCHITECT AT THE NURSERY PRIOR TO DIGGING OR DELIVERY TO SITE.
- STAKE LOCATIONS OF ALL PROPOSED PLANTING FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF PLANTING.
- ALL TURF AREAS TO RECEIVE SIX INCHES AND ALL PLANT BEDS TO RECEIVE TWELVE INCHES OF PLANTING SOIL MIX AS SPECIFIED.
- ALL PLANTING BEDS AND TREE WELLS SHALL RECEIVE 3" DEEP BARK MULCH AS SPECIFIED UNLESS OTHERWISE INDICATED ON PLAN.
- ALL FLOWERING BULBS SHALL BE PLACED IN THE FIELD BY THE LANDSCAPE ARCHITECT.
- ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. REFER TO SPECIFICATIONS FOR FURTHER DETAIL.
- PRUNE TREES IN ACCORDANCE WITH SPECIFICATIONS.
- LAWN AREAS TO BE REHABILITATED SHALL HAVE EXISTING TURF SURFACE REMOVED AND GRUBBED OUT, AND EXISTING TOPSOIL PRESERVED AND AMENDED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND WATERING EXISTING PLANTS TO REMAIN.
- CONTRACTOR SHALL COVER EXPOSED ROOTS WITH BURLAP AND WATER REGULARLY ALL EXISTING TREES TO REMAIN.

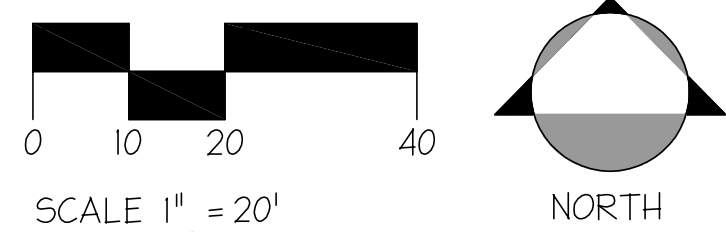
PRODUCT AND MATERIALS SCHEDULE

ITEM NO.	MODEL NO.	MANUFACT.	AVAILABLE VIA.	FINISH	COLOR	COMMENTS	DLTS.
ASH URN	DE-PIIR	BARCO	BARCO PRODUCTS 800-338-2647	EXPOSED AGGREGATE	BROWN	PER MANUFACTURERS INSTALLATIONS REQUIREMENTS. SURFACE MOUNT WITH THREADED ANCHORS.	⑧ (U.S.) SIMILAR
BENCH	GTB600	BARCO	BARCO PRODUCTS 800-338-2647	N/A	SEAT: CEDAR ENDS: BLACK	PER MANUFACTURERS INSTALLATIONS REQUIREMENTS. SURFACE MOUNT WITH THREADED ANCHORS.	⑧ (U.S.)
BIKE RACK	BIKEL00PSM	BARCO	BARCO PRODUCTS 800-338-2647	N/A	BROWN	PER MANUFACTURERS INSTALLATIONS REQUIREMENTS. SURFACE MOUNT WITH THREADED ANCHORS.	⑧ (U.S.)
TRASH RECEPTACLE	DE-MK70FG	BARCO	BARCO PRODUCTS 800-338-2647	EXPOSED AGGREGATE	BROWN	PER MANUFACTURERS INSTALLATIONS REQUIREMENTS. SURFACE MOUNT WITH THREADED ANCHORS.	⑧ (U.S.)

PLANTING LEGEND

TREES		SHRUBS	
	Existing Deciduous Tree (To Remain)		VIB PLI
	Existing Evergreen Tree (To Remain)		CAR CLA
	AME GRA		COR ALB
	CRA CRU		JUN HOR
	FAG COL		PRU PAW
	ILE MES		PRU CIS
	RIB ALP		ROS WOO
	SYM ALB		SYM ALB
	SYM ORB		SYM ORB
	TAX MED		TAX MED
	ILE MES		ILE MES

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.
TREES				
AME GRA	Amelanchier grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	8 ft clump	7
CRA CRU	Crataegus crusgalli var. inermis	Thornless Cockspur Hawthorn	2" cal	3
FAG COL	Fagus sylvatica 'Dawyc'	Columnar Beech	2" cal	14
PLA ACE	Platanus acerifolia 'Bloodgood'	London Plane Tree	2" cal	9
SHRUBS				
CAR CAN	Caryopteris clandonensis 'Blue Mist'	Blue Mist Shrub	#5	60
COR ALB	Cornus alba 'Ivory Halo'	Ivory Halo Dogwood	#5	13
ILE MES	Ilex meserveae 'Blue Boy'	Blue Boy Holly	#5	13
JUN HOR	Juniperus horizontalis 'Prince of Wales'	Prince of Wales Juniper	#5	68
PRU PAW	Prunus besseyi 'Pawnee Butte'	Pawnee Butte Sand Cherry	#5	24
PRU CIS	Prunus cistena	Purple Leaf Sand Cherry	#5	5
RIB ALP	Ribes alpinum	Alpine Currant	#5	51
ROS WOO	Rosa woodsii	Wood's Rose	#5	15
SYM ALB	Symphoricarpos albus	Common White Snowberry	#5	107
SYM ORB	Symphoricarpos orbiculatis	Indian Currant	#5	60
TAX MED	Taxus media 'Hicksii'	Hicks Yew	#5	10
VIB PLI	Viburnum plicatum tomentosum 'Mariesii'	Mariesii Doublefile Viburnum	#5	22
GROUND COVER				
	Mahonia repens	Creeping Mahonia	#1 @ 18" o.c.	645
	Thymus serpyllum 'Minus'	White Mother of Thyme	Flat @ 12" o.c.	1,730
	Veronica liwanensis	Turkish Speedwell	Flat @ 12" o.c.	2,484
	Turf Sod	Kentucky Bluegrass	Sod	41,980 sf



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PROJECT NAME:

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REVISIONS:

SEPTEMBER 15 2008, 100% CD

ARCHITECT'S PROJECT NUMBER:

B07-051

DFCM PROJECT NUMBER:

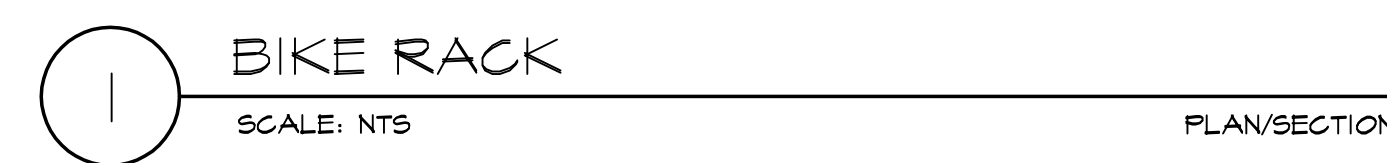
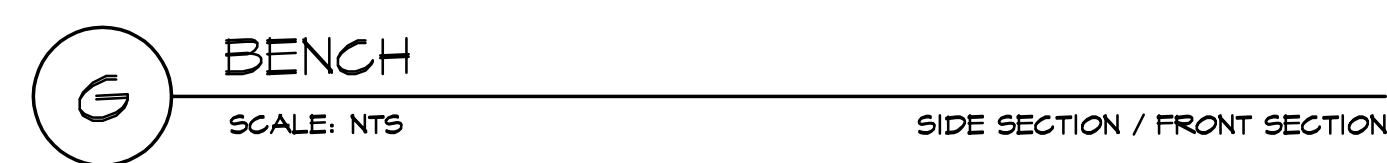
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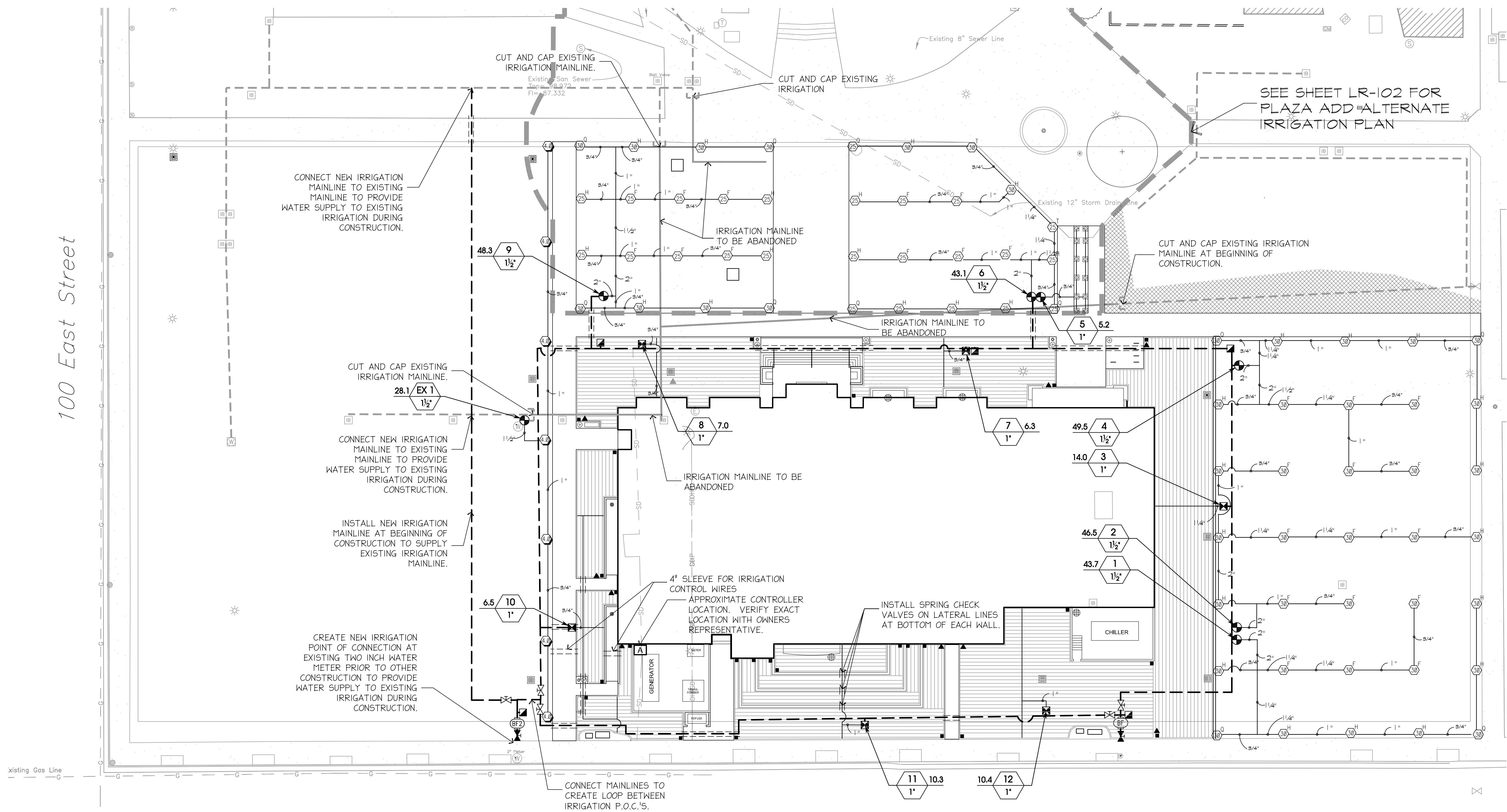
SHEET TITLE:

PLANTING PLAN

SHEET NUMBER:

LP-101

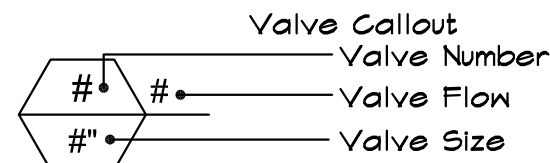




IRRIGATION LEGEND

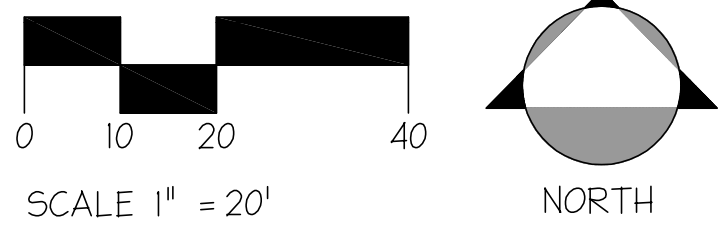
SYMBOL	MANUFACTURER	MODEL NUMBER	DESCRIPTION	RAD.	P.S.I.	G.P.M.	DETAIL
	RAINBIRD	1804-PRS-8-Q,T,H,F	POP-UP SPRAY HEAD	7"	30	26,35,52,105	SHT. LR-501 DTL. J
	RAINBIRD	5004 PL-MPR-25-Q,T,H,F	POP-UP ROTOR HEAD	22"	45	1,00,1,35,1,95,3,62	SHT. LR-501 DTL. G
	RAINBIRD	5004 PL-MPR-30-Q,T,H,F	POP-UP ROTOR HEAD	27"	45	1,40,1,85,2,96,5,78	SHT. LR-501 DTL. G
	RAINBIRD	5004 PL-PC-4.0	POP-UP ROTOR HEAD	42"	45	4.01	SHT. LR-501 DTL. G
	RAINBIRD	XCZ-100-B-COM	DRIP CONTROL VALVE ASSEMBLY INCLUDES PEB VALVE, FILTER, AND PRESSURE REGULATOR RESPONSIBLE TO ADJUST PRESSURE AT EACH VALVE.				SHT. LR-502 DTL. A
	RAINBIRD	PEB-PRS-D	ELECTRIC REMOTE CONTROL VALVE WITH PRESSURE REGULATING MODULE (SIZED AS NOTED). CONTRACTOR RESPONSIBLE TO ADJUST PRESSURE AT EACH VALVE.				SHT. LR-501 DTL. A
	WATER METER		SEE CIVIL ENGINEERING PLANS				N/A
	RAINBIRD	44RC	QUICK COUPLING VALVE				SHT. LR-501 DTL. E
	MUELLER		2" STOP AND WASTE VALVE				SHT. LR-501 DTL. F
	WATEROUS		RESILIENT WEDGE GATE VALVE (LINE SIZE)				SHT. LR-502 DTL. F
	RAINBIRD	ESP-24"IC	24 STATION INDOOR WALL MOUNTED CONTROLLER				SHT. LR-501 DTL. D
	WILKINS	975XL	2" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER.				SHT. LR-501 DTL. B
			EXISTING MAINLINE TO REMAIN				
			EXISTING MAINLINE TO BE ABANDONED				
	APPROVED	PVC SCH 40	2" POTABLE PRESSURE SUPPLY LINE				SHT. LR-501 DTL. C
	APPROVED	PVC SCH 40	NON-PRESSURE LATERAL LINE (SIZE NOTED ON PLANS)				SHT. LR-501 DTL. E
	APPROVED	PVC SCH 40 SDR 21	IRRIGATION SLEEVE				SHT. LR-501 DTL. I
	NETAFIM	TLCV4-1B	TECHLINE INLINE EMITTER TUBING W/CHECK VALVE AND 4 GPH EMITTERS SPACED 18" APART.				SHT. LR-502 DTL. B,C,H
	NETAFIM	#TLFV-1 and #TL50V	DRIP AUTOMATIC AND MANUAL FLUSH VALVE				SHT. LR-502 DTL. D
	NETAFIM	#10-CV-01	DRIP OPERATION INDICATOR STAKE				SHT. LR-502 DTL. I

NOTE: IRRIGATION HEADS SHALL BE INSTALLED WITH SAM CHECK VALVES AS NECESSARY TO PREVENT LOW HEAD DRAINAGE. INSTALL SPRING CHECK VALVES AS NECESSARY ON DRIP IRRIGATION LINES TO PREVENT LOW HEAD DRAINAGE.



IRRIGATION NOTES

- MIKE DUNCAN IS THE SNOW COLLEGE GROUNDS AND IRRIGATION DEPARTMENT CONTACT PERSON. HE CAN BE REACHED BY TELEPHONE AT (435) 340-0268.
- EXISTING LANDSCAPE TO REMAIN SHALL BE PROTECTED, MAINTAINED, AND SHALL BE IRRIGATED THROUGHOUT THE GROWING SEASON. ANY LANDSCAPE AREAS TO REMAIN THAT WILL HAVE IRRIGATION SHUT OFF DUE TO CONSTRUCTION SHALL BE HAND WATERED. ANY LANDSCAPE TO REMAIN THAT IS DAMAGED DUE TO LACK OF IRRIGATION SHALL BE REPLACED AT NO EXPENSE TO THE OWNER. COORDINATE WITH SNOW COLLEGE IRRIGATION DEPT. TO VERIFY LOCATIONS OF EXISTING IRRIGATION AND THE LANDSCAPE AREAS THEY WATER.
- THE IRRIGATION CONTRACTOR MUST EXAMINE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OF UNSATISFACTORY CONDITIONS. DO NOT PROCEED UNTIL CONDITIONS HAVE BEEN CORRECTED.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALKS, RETAINING WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION, INSTALLATION AND MARKING OF PIPE SLEEVES UNDER WALKS AND THROUGH WALLS.
- BEFORE ANY TRENCHING, EXCAVATION OR DIGGING FOR ANY REASON, THE IRRIGATION CONTRACTOR SHALL OBTAIN A "DIGGING PERMIT" AND HAVE THE AREA "BLUE STAKED" IN ORDER TO DETERMINE THE LOCATION OF UNDERGROUND UTILITIES. REQUESTS FOR DIGGING PERMITS MUST BE RECEIVED FIVE (5) WORKING DAYS BEFORE DIGGING BEGINS. THE CONTRACTOR WILL CONDUCT HIS WORK IN SUCH A MANNER TO PROTECT ALL UTILITIES FROM DAMAGE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR OR REPLACE ANY DAMAGE CAUSED BY HIM OR HIS WORKMEN AT NO EXPENSE TO THE OWNER.
- THE IRRIGATION SYSTEM IS BASED ON A MINIMUM OPERATING PRESSURE AT THE MAIN CONNECTION OF 75 PSI. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCES BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE POINT OF CONNECTION TO THE LANDSCAPE ARCHITECT.
- DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL THROTTLE CONTROLS ON ALL SPRINKLER HEADS AND ADJUST VALVES FOR OPTIMUM COVERAGE WITH MINIMAL OVER SPRAY ONTO WALKS, STREETS, WALLS, ETC.
- LOCATE ALL HEADS NEXT TO WALKS A MINIMUM OF 3" FROM EDGE OF WALKS, PAVEMENTS, CURBS, ETC. AND SET 1" BELOW EDGE OF PAVEMENT.
- ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE.
- IRRIGATION VALVES AND MAIN AND LATERAL LINES SHOWN ON PLANS ARE DIAGRAMMATIC ONLY AND ARE SHOWN IN HARDSCAPE AREAS FOR CLARITY ONLY. ALL VALVES AND PIPES SHALL BE PLACED IN LANDSCAPE AREAS. PIPE SHALL BE LAIN IN COMMON TRENCHES WHEN FEASIBLE.
- EXACT LOCATION OF IRRIGATION MAINLINE ROUTING SHALL BE COORDINATED WITH THE PLANTING (SEE SHEET LR101) AND PLANTING TO ELIMINATE CONFLICTS WITH TREE PLANTING.
- PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OR SMALLER PIPE SIZES SHALL BE APPROVED. ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE IMMEDIATELY.
- ALL MAIN LINES, LATERAL LINES, AND CONTROL WIRES UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES. CONTROL WIRE SLEEVES SHALL BE OF SUFFICIENT SIZE FOR THE REQUIRED NUMBER OF WIRES UNDER PAVING.
- ALL SALVAGED IRRIGATION EQUIPMENT (HEADS, VALVES, ETC.) WITH THE EXCEPTION OF PIPE, SHALL BE DELIVERED TO SNOW COLLEGE GROUNDS DEPARTMENT.
- THE IRRIGATION CONTRACTOR SHALL MAKE THE ELECTRICAL CONNECTIONS FROM THE NEW VALVES TO THE CONTROLLERS. IRRIGATION TIES SHALL BE SET BY THE CONTRACTOR UNDER THE DIRECTION OF SNOW COLLEGE GROUNDS MAINTENANCE SUPERVISOR.
- EXISTING TREES ON THE SITE MAY REQUIRE SLIGHT MODIFICATIONS TO THE LINES AS THEY ARE SHOWN ON PLANS. CONTRACTOR TO HAND TRENCH UNDER EXISTING TREE DRIP LINES.
- THE CONTRACTOR SHALL PROVIDE ALL LABOR, PARTS AND MATERIALS REQUIRED TO COMPLETE THE IRRIGATION SYSTEM.
- AREAS SHOWN TO BE REPAIRED AND ADJUSTED ARE ESTIMATED. CONTRACTOR SHALL REPAIR AND ADJUST IRRIGATION IN ALL AREAS THAT HAVE BEEN DISTURBED BY THIS CONSTRUCTION.
- ALL LINES SHALL SLOPE TO MANUAL DRAIN (SEE DETAILS). IF FIELD CONDITIONS NECESSITATE ADDITIONAL DRAINS, THESE DRAINS SHALL BE INSTALLED FOR COMPLETE DRAINAGE OF THE ENTIRE SYSTEM. REFER TO DETAILS AND SPECIFICATIONS FOR DRAIN INSTALLATION, SUMP REQUIREMENTS AND DEPTH OF BOTH DRAIN AND SUMP.



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REVISIONS:

100% CD, September 15, 2008
100% CD Review, August 4, 2008

ISSUE DATE:

SEPTEMBER 15 2008, 100% CD

ARCHITECT'S PROJECT NUMBER:

B07-051

DFCM PROJECT NUMBER:

07258700

SHEET TITLE:

IRRIGATION PLAN

SHEET NUMBER:

LR-101